00108116

Digitized with financial assistance from the

Government of Maharashtra

on 18 July, 2018

s

!"#$%

s

s

s - .

s

*(' % ' &

s

*

' / ' 0* ' 0* ' $' % &' / &(*+& ' $'

' /'

& ' ' !' "

$ %' ()*

s

"+

s s s s

s s s

s s s s s s s s s s s s

s s s

s s s s s

s s

s s s s s s s s s s s s

ʻ / ;8 < =# ;>ʻ /;?@ =Aʻ @?=# = ʻ =ʻ#B ʻ ?8C< ʻD A =ʻ #ʻ#B ʻ ; ʻ *ʻ#B ʻ ?8C# ?=ʻ
=ʻ ʻ %B ʻ # =Aʻ?!ʻ#B ʻ& # # ʻ?!ʻ#B ʻ1 =A ?< ʻEB @Bʻ E ʻ! ; #ʻ@ 88 ʻ#?A #B ;4ʻ C= ;ʻ
F#; ?; = ;>ʻ@ ;@C< # =@ 4ʻ ?=ʻ #B ʻ !?C;# =#Bʻ >ʻ?!ʻ ;@Bʻ G4ʻ = ʻEB @Bʻ E ʻHʻ $ +ʻ
Hʻ =#?ʻ ʻ / ;8 < =#Iʻ ?=ʻ #B ʻ ! !#Bʻ >ʻ ?!ʻJC= 9#8 ; !# ;4ʻ B ʻD =ʻ C= !?;<8>ʻ; @?A= ʻ ʻ
ʻ8 %#%% #ʻ ,,- . /!0ʻ?!ʻ "?ʻO A 8 #C; ʻ5 = ʻ # ʻ @# ʻB ʻ?D# = 4ʻ ʻK8 @ ʻ =ʻ#B ʻ @B;?=?8?L
A @ 8ʻ ; ʻ?!ʻ#B ʻ @?; ʻ?!ʻ#B ʻ / ;8 < =# ʻ?!ʻ (@?#8 = ʻ5 !;?<ʻEB @Bʻ#B ʻ<?; ʻ <K?;# =#ʻ
;# @8 ʻB ʻD =ʻ#; = ! ;; ʻ =#?ʻ#B ʻ ; 8ʻ ?88 @# ?= ʻ?!ʻ(# #C# ʻEB @B55B ʻ =@ ʻD =ʻ
KCD8 B ʻ *=ʻ#B ʻ!?88?E =Aʻ ?8C< 4ʻ ʻ < 8 ;ʻK8 @ ʻB ʻD =ʻ A= ʻ#?ʻ#B ʻ @# ʻ = ʻ ; ;ʻ
?!ʻ#B ʻ # =Aʻ?!ʻ#B ʻ& # # 5 = ʻ#?ʻ#B ʻ C@@ ʻ =ʻ#B ;ʻ?; ;4ʻ#B ʻ @# ʻ?!ʻ#B ʻ$; #4ʻ
(@?= 4ʻ%B ; 4ʻ = ʻ$?C;#Bʻ(?= ʻ?!ʻ#B ʻ$; #ʻ / ;8 < =#ʻ?!ʻ1 =Aʻ2 88 <ʻ = ʻ3C =ʻ ;>4
B?8 =ʻ =ʻ#B ʻ> ; ʻ G4ʻ G 4ʻ = ʻ G.5ʻ = ʻ#B ʻ @# ʻ?!ʻEB #ʻ ʻ @; D ʻ ʻ#B ʻ$!#Bʻ
(?=ʻ?!ʻ#B ʻ$; #ʻ / ;8 < =#ʻ?!ʻ1 =Aʻ2 88 <4ʻB?8 =ʻ =ʻ#B ʻ> ;ʻ G ʻ ʻ?!ʻ#B 4ʻB ʻ
D =ʻ # " =ʻ !;?<ʻ #B ʻ ??" ʻ ?!ʻ / ;8 < =#5ʻ EB @B4ʻ !?;ʻ #B ʻ K ; ? ʻ @?<K; B = ʻ =ʻ#B ʻ
?8C< 4ʻ ; ʻ =# ; ʻ = ʻ@?<K8 # 4ʻ E #Bʻ #B ʻ F@ K# ?=ʻ ?!ʻ#B ʻ @?; ʻ?!ʻ#B ʻ (?=ʻ =ʻ 8 G. ʻ
EB @Bʻ B ʻD =ʻ 8 !#ʻ C=! = B ʻ %B ʻ ! @#ʻ B ʻD =ʻ =ʻ K ;#ʻ CKK8 ʻ!;?<ʻ#B ʻ?; A = 8ʻ
2 ;; =# ʻ?!ʻ / ;8 < =#ʻ

ʻ#B ʻ; AC8 ;ʻ @?; 4ʻ?;ʻ ??" ʻ?!ʻ / ;8 < =#4ʻ !?;ʻ ,-ʻ . , +ʻ ʻ ; ʻK; ; ʻ
#B ʻ / ʻK ;#ʻ?!ʻ ʻ ,/,$ "ʻ 2 ;; =# ʻ %B ʻB ʻD =ʻ@?88 # ʻE #Bʻ#B ʻ @?; 4 = ʻ
B ʻ!C;= B ʻ#B ʻ< = ʻ?!ʻ@?;; @# =Aʻ ; ?C ʻ ;;?; ʻ?!ʻ#; = @; K# ?=

+C; =Aʻ #B ʻ =# ; 8ʻD #E =ʻ #B ʻ # =Aʻ ?!ʻ#B ʻ& # # ʻ?!ʻ#B ʻ& =A ?;=ʻ =ʻ ;@Bʻ = ʻ
9K; 8ʻ G4ʻ = ʻ#B ʻ(?=ʻ?!ʻ / ;8 < =#ʻ =ʻJC= ʻ#B ; !# ;4ʻ #B ʻ; AC8 # ?=ʻ?!ʻ /CD8 @ʻ !! ; ʻ
E ʻ ?8 ʻ?=ʻ ʻ ?< < ## ʻ?!ʻ ?D8 < =4ʻ ;?= 4ʻ = ʻ C;A (ʻ KK? =# ʻ!?;ʻ#B #ʻKC;K? ʻ
D>ʻ#B ʻ # =Aʻ?!ʻ#B ʻ& # # ʻ5 EB? ʻ ## =A ʻ@?< < =@ ʻ?=ʻ #B ʻ#E =#>9= =#Bʻ >ʻ?!ʻ K; 84ʻ
= ʻ E ; ʻ @?=# =C ʻ #?ʻ#B ʻ#E =#>9#B ; ʻ >ʻ?!ʻ >ʻ %B ʻ; @?; ʻ @# ʻ = ʻ ; ; ʻ?!ʻ#B ʻ
?< < ## ʻB ʻD =ʻK; =# ʻ =ʻ #B ʻ KK = Fʻ #?ʻ #B ʻ ?8C< 4ʻ ʻ ʻ@?== @# =Aʻ8 ="ʻD #E =ʻ
#B ʻ /;?@ =A ʻ?!ʻ#B ʻ& # # 4ʻ = ʻ#B? ʻ?!ʻ#B ʻ CD NC =#ʻ / ;8 < =#

1-ʻ!2,3ʻ+-4"+5-5ʻ 43ʻ"6ʻ31%,ʻ -,,%"7ʻ%,ʻ3123ʻ78 . /-+-5ʻ(ʻ%7ʻ31-ʻ6" "9%7#ʻ "!8 . -ʻ: ʻ) ;<

*=‘#B‘ KK = F‘B ‘ 8?‘D =‘K8 @ ‘ ;?C‘/;?@ =A‘ =‘#B‘ (?=‘?!‘/ ;8 < =#‘
0 G 4#‘EB@B‘ ;‘=?#‘ =# ;‘?=‘#B‘ @?;‘ %B‘<? #‘ <K?;# =#‘?!‘#B ‘ ‘#B‘/;?@ ‘?!‘
$?;! #C; 4‘A = #‘#B‘ K; =# # ‘?!‘#B‘ @?C=#‘?!‘+C= 4‘#B‘& ;8‘?!‘+C<! ;<8=A4
4 = ‘?#B ;‘5 # " =‘K ;#8>‘!;?<4‘‘ K ; #‘ @?;‘?!‘$?;! #C; ‘ =‘/ ;8 < =#4‘ = ‘K ;#8>‘
JQ?<‘#B‘?; A = 8‘2 ;; =#‘?!‘#B #‘/;?@ 4

%B‘ =C# ‘?!‘#B‘/;?@ =A‘ =‘/ ;8 < =#‘ =‘ G.4‘ = ‘ G 4‘B ‘D =‘K; ; 4‘D?#B‘
=‘#B‘?; A = 8 4‘ = ‘ ‘#B >‘E ;‘K; =# ‘!;?<‘ >‘#?‘ >‘!?;‘#B‘C ‘?!‘#B‘ ?C ‘ %B ‘
FB D #‘ < =>‘ # 8‘?!‘K;?@ C;‘EB@B‘B ‘=?#‘D =‘ # " =‘=?#@‘?!‘ =‘#B‘ @?; 5 = ‘
B ‘#B ; !?; 4‘D =‘K8 @ ‘ =‘#B‘ KK = F4‘E #B‘ ; ?C‘; 8 # ‘ ?@C< =#‘5 <?=A‘EB@B‘
;‘#B‘; @?; ‘/;?@ =A‘ =‘#B‘$?;! #C;‘?!‘#B‘& ;8‘?!‘ 8!?;#‘ =‘#B‘> ;‘ G

‘%B‘?; A = 8‘ =C# ‘?!‘#B‘/;?@ =A‘ =‘/ ;8 < =#‘ =‘ G‘ = ‘ G‘ ;‘=?#‘K; ; 5
=?;‘B ‘#B‘K; @#@‘D =‘#B =‘ ?K# ‘?!‘K; =# =A‘#B <‘!?;‘#B‘C ‘?!‘#B‘ ?C ‘ %B ‘8? ‘ ‘
#B‘<?; ‘#?‘D‘; A; ## 4‘ ‘#B‘ @?; ‘?!‘#B ‘#E?‘(?=‘?!‘/ ;8 < =#4‘ = ‘<?; ‘ K @ 88>‘
?!‘#B‘!?;< ;4‘ ‘ F#; < 8>‘< A; 4‘ = ‘B ‘?= ## ‘ < =>‘@C; ?C‘ = ‘ =# ; # =A‘K ;#‘?!‘#B‘
K;?@ C; ‘ %B ; ‘ 4‘B?E ;4‘ =‘#B‘O D; ;>‘?!‘#B‘J$ @C #>‘ ;!‘ ?@ # 4‘ ‘ =C @; K#‘?!‘#B‘
K ; ? 4‘EB@B‘K;?! ‘#?‘A ‘!C88‘@?K ‘?!‘#B ‘ =C# 94‘ EB@B‘ KK ; 4‘!;?<‘ =#; = @‘
=@ 4‘#?‘B ‘D =‘F @C# ‘E #B‘#?8 ; D8‘! 8#>‘ %B ‘@?K ‘?!‘ =C# ‘B ‘D =‘
#B? AB#‘ ; =A‘?!‘‘K8 @‘ =‘ ‘(CKK8 < =#‘#?‘#B ‘ ?8C< 4‘ 8?=A‘E #B‘ ?< ‘?; A = 8‘
?@C< =#‘?!‘@?= ; D8‘ <K?;# =@

%‘% (

. ,‘ 49 RS

ʻ

ʻ ʻ ʻ ʻ

) % *'&+ʻ*1ʻ% *(Ť O' &

/O %&ʻ#ʻ: /ʻ

@#ʻ ?!ʻ#Bʻ #=Aʻ?!ʻ#Bʻ & # # ʻ?!ʻ#Bʻ 1=A ?<ʻ ;@Bʻ ʻ Gʻ @8;=Aʻ#Bʻ <ʻ
#?ʻDʻ ʻ!; ʻ =ʻ8 E!Cʻ #=A5ʻ:ʻ(CD @;D ʻD>ʻ#Bʻ 8 ;A>ʻ =ʻ1?D8#>

/O %&ʻ*O9 /ʻ

%Bʻ <5ʻ:ʻ(CD @;D ʻD>ʻ#Bʻ ;?=ʻ ?<< ?=;ʻ!?;ʻ(B;ʻ

Ó /O %&ʻ***ʻ:/ʻ

%B ʻ <5ʻ:ʻ(CD @;D ʻD>ʻ#Bʻ ?<< ?=;ʻ!?;ʻ C;AB

ʻ $$+''33''!''#362!' 2!+!+

$ʻ % &

ʻ ʻ

+ ʻ % &

ʻ

ʻ ʻ ʻ

+"7"!"#%32! 26%!3

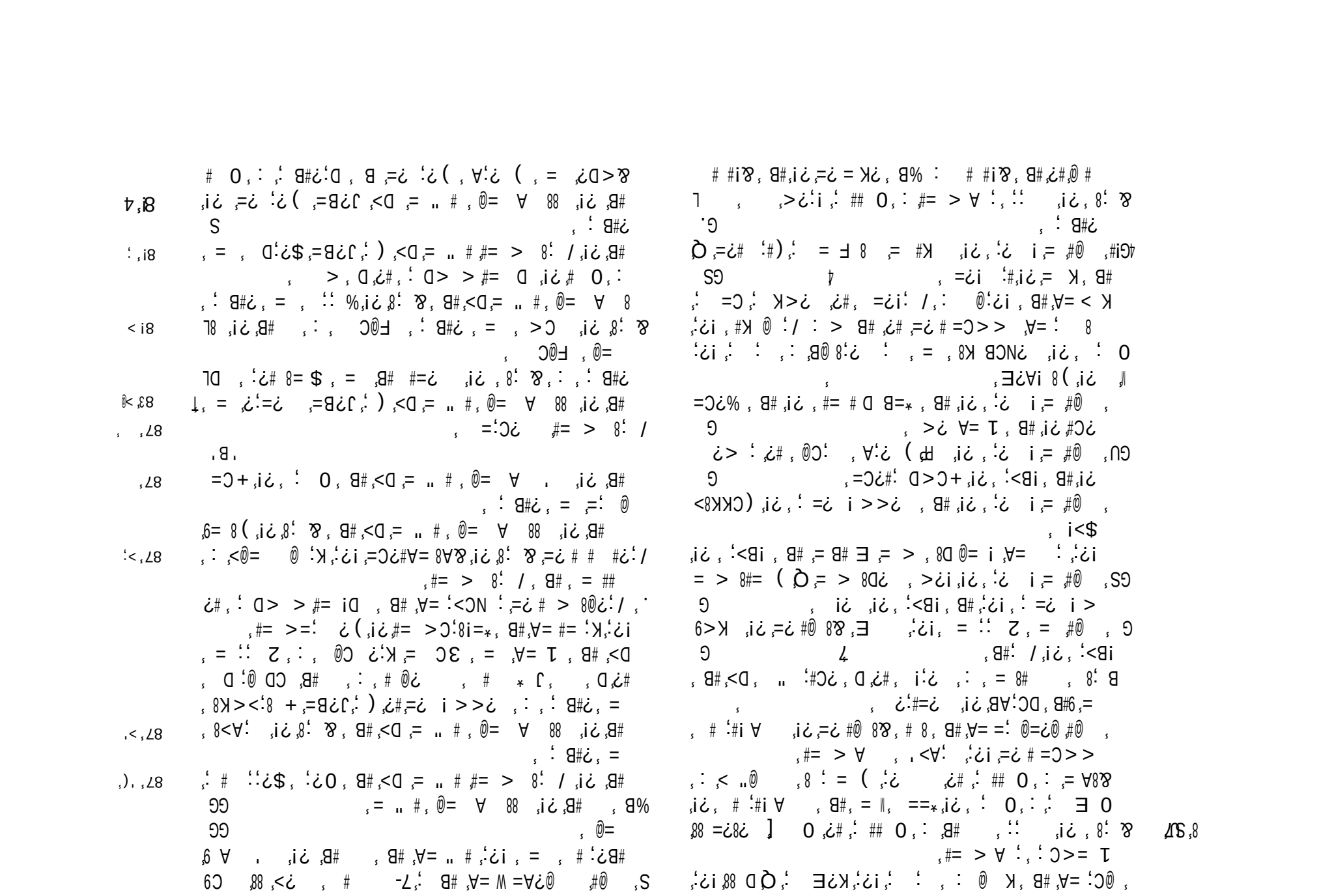
& %* / ' +& + * ') 4

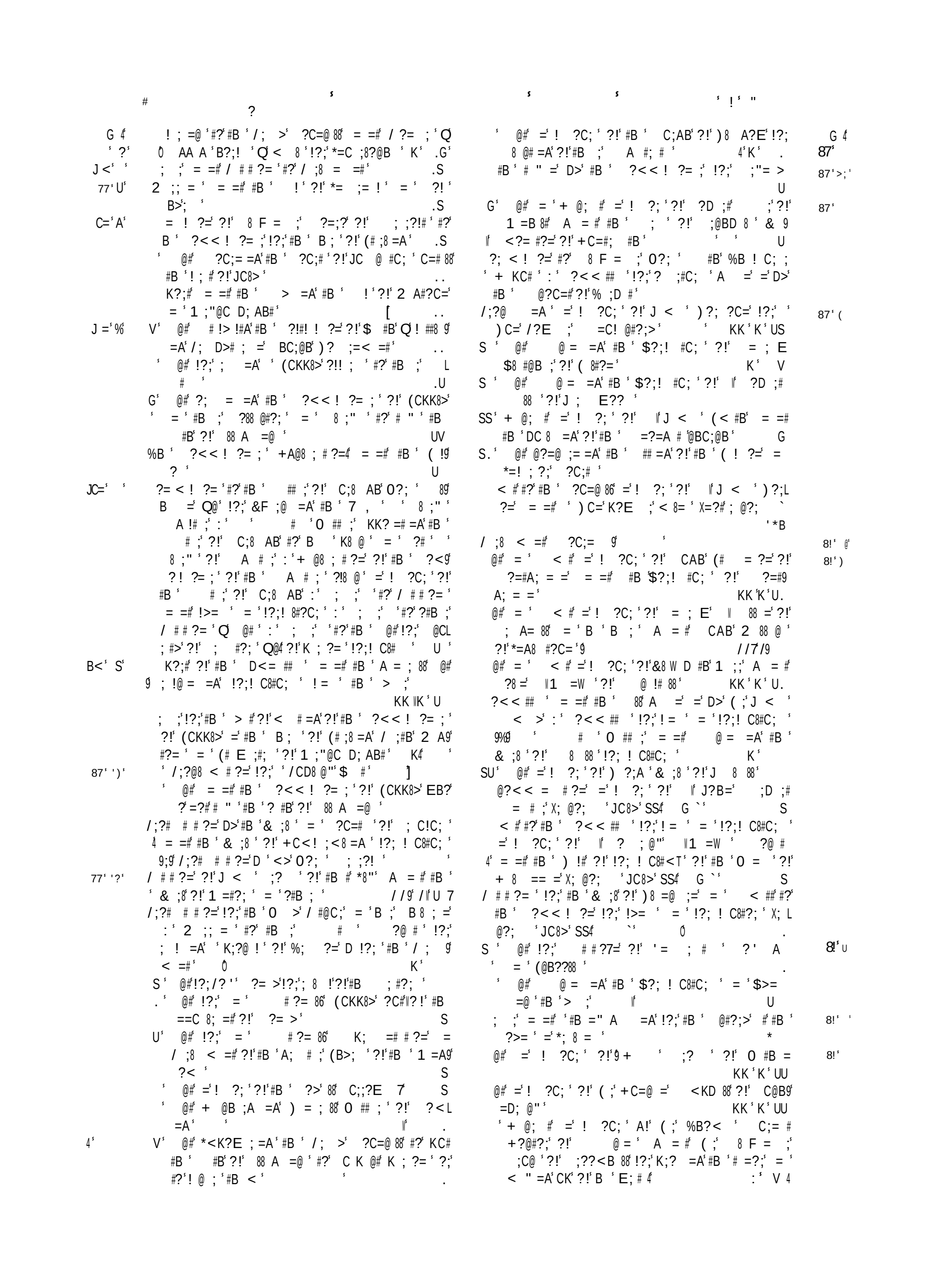
.!8 %**4 + 4+ 4O , , , * ,

'*(= 62+ U

?88?!#B ?= =# ?=4 K . /;?# # # ?= D>#B 8 # ;@BD B?K?!) 8 A?E4 & ;8 ?!(C#B ;8 = 4 &;;?'4 ;;4 ;A>884 $ =! 78 #?#0 =4 0?; ?! 4 ; ;?4 8< ; =?@B4 Q#B ?<< ! ?= ; !?;#B (B ; ?!/ ;#B Q $>! !?;K; @ =@> %B + C" ?!< 8#?=/ ; ! =#7 : 8 ;" #?#B # =A?!#B &!# # : ; ;#?#B + C" ?!) ?; ?C=#?< ? '# ?!#B #8 ?!& =7 DC;AB : ? ?< < ## !?;? =#; ;# &8 @L # ?= : + C" ?!) ?; ?= ;? ?< < ! ?=!?;7 #B B ; ?! ;E @" : + C" ?!) ?; ?C= =!E ;#?#B ?; ;?!#B &!# # : ?8C# ?= = /;?@ =A #B ; CK?= V ;? ?< < ! ?=!?;#B !B ; ?! ;E @" : ?< < !9 ?=!?;#B DC;AB?!/ ;#B : 0 ## ;!;? 1 =A J < K; ! =# #?#B # =A : 0 ## ;! !;?<#B /; =@ ?!; =A #?#B &!# # (4 5 @#8 ; =A#B #?D ! ;Q8 E!C '< #L =A?!#B &!# # G ?< < ## !?;! @C; =A#B / @ : %?E=) C ; : >A?= ;; ; 2+ '(?< < ! ?=!?;#B B ; ?!& =;?! : ?< < # ?=!?;#B DC;AB?!0 =8 #BA?E /;?@8 < # ?=!?;D; =A =A =#B D>A?= ;; ; ?!#B KCD8 @" =C K?;#?!#B ?< < ## !?;! @C; =A#B K @ : ; ;?!#B &!# # #B ; ?= : = =#B 0?; + C= : 2 ;; = #?#B & ;8?!0 =!?; ! @C; =A#B K @?!#B #?C= : (8 W ;: 0 ## ;! !;?<*; 8 = :g = =# #B ?= # ?=?!#B AB8 = : %B !@?C; # ?!+C= : (8 B?; =%?C= 2+ .@#!XYKC## =A#B 1 =A ?< =K?!#C; ?!! =@ 0 .

U @# =?< = # =A . , - , ', , =Z #B G4 9 B>; ?!;E @" 0 K . ; 4 8 # ; < ?!;E @" : 8 # =#B B>; ?!& =DC;AB4 0 =8 #BA?E4 / D8 Q =A9 #?==: ; < !?!;A>8 B>; : +=" ?!) ?;L ?= . =; ; = =# =# #B#?D # " =D>KK;!?= =< B# ;>*<K8?>< =# U @# KK;? =A#B ; ! < D>#B ?D8 L < = =) =#8 < =#?# AB= %B /; =@ ?!; =A4 U 0 & ;8?!0 = < =E @?C=# +C= = 0?; 0 =A!#?'=: /; K?! 88 !;?<#B +C" ?!) ?; ?=: ; #@8 A; #?=!E ;#?#B !?;! /;?K? 8 T U5 %B ; 8 : @?C=# ?!+C= : ?<< !9 7; ?=!?;D ; = : &=! A=P =@B !# ; /;?@8 < # ?= A =!# / K !# @# KK?>=# =A PP 2 88 <? A ;? ?88 @#?; ?!#B !CKK8> =#B B>; ?!; ?< < ! ?=!?;#B B ; ?!; E @" &FK =@ ?!KCD8 @" !K #@B Q@: ?; < # ; : %E?! ; AA?## : %B KCD8 @" ; < : ?<9 9 < ! ?=!?;1 ;"@ 8 : ;# @8 = =!E ;#?# #B + C" ?!) ?; ?C= /;?K?!"88 : ?< < !9 A=!?; =!#;C#B ;! # ; : %B =# = 88 : ?< < ! ?=!?;J DC;AB 07 V 9 #B D># B?! = < 8 # ;> <K8?>< =# : =@9 ; @?C=# ?!: ; < : 2 ;; = ; K @# =A ; < @# ?! KK;?D # ?= = ! ?; ?!#B & ;8 ?! % 8 G /CD8 @" <?= > : =!E ;D>#B + C" ?!) ?;L ?= ?< < ## #?< = # ;#B ? #B?! ! 8 # : ; S (C K @# K ; ?= # 3C = ! ;;> 7 * @# !?;! @C; =A!C!K @# K ;!?= G0 0 ## ;#?#B 1 =A ?! &=A8 = : 2 ;; = #? ;A>8 #?< W $ - S @# !?; !#; DC# ?= ?! #B ; < < ?=A!# #B E !# ;= !B>; 0 [S





QG.4 =C# ʻ KK ʻ K ʻW9 ʻ @#ʻ ?; ; =Aʻ 3C ;# ; =Aʻ !?;ʻ#B ʻ B?K ʻ =#
20ʻ ; = ; #ʻ !>= =Aʻ ?!ʻ D =#ʻ < <D ; ʻ K ʻS U =ʻ #B ʻ ?C= ʻ ?!ʻ #B ʻ (>=? ʻ ?!ʻ ;A>8 ʻ = ʻ #B ʻ
ʻ @#ʻ !?;ʻ = ʻ # ?= 8ʻ &F@ ! ʻ S U * 8 ʻ K ʻS
¼ / ;?# @# ?=ʻ =ʻ ! ?; ʻ ?!ʻ J?B=ʻ (" =ʻ ?!ʻ 8>@ ;

ʻ =C# ʻ 9 //7 /9V ʻ @#ʻ =ʻ ! ?; ʻ ?!ʻ A= ʻ <KD 'ʻ ; '@#ʻ ?!ʻ =L
#Bʻ # " =ʻ D>ʻ #B ʻ ?<< ! ?= ;ʻ !?;ʻ#B ʻ B ; ʻ ?!ʻ ; Eʻ = ; ?=ʻ ʻ # ʻ / ; =# ;ʻ S G
& =DC;ABʻ :ʻ& ;8ʻ ?!ʻ 1 =@ ; = ʻ = ʻ @?C=#
?!ʻ 1 =A #?C=ʻ F@C ʻ K ʻS

20ʻ '' =C# ʻ 9 K/9 / V =C# ʻ KK ʻ K ʻ U ʻ
ʻ @#ʻ A = #ʻ ! 8 ʻ C # ; ʻ = ʻ !; ʻ 3C ;# ; /;?# @# ?= ʻ #?ʻ (;ʻ J < ʻ ?@"DC;=ʻ = ʻ 8 F = ;ʻ
= ʻ = =#ʻ C ʻ K > =Aʻ ?!ʻ #B ;ʻ # ʻ < 8#?=ʻ ?!ʻ 1 =" 88ʻ ; = E ʻ :ʻ ?<< ! ?= ;ʻ
$?;@ ʻ K ʻS ?!ʻ O?@B< D = ʻ ! = ʻ @B ;A ʻ K ʻ SV
0?; ʻ ;=ʻ = ʻ 0 ; ? ! ʻ F@C ʻ :ʻ 2 ;; =#ʻ !?;ʻ S ʻ @#ʻ ?C;= =Aʻ #B ʻ (! ?=ʻ #?ʻ #B ʻ $; #ʻ ?!
=Aʻ ?!ʻ =! ; ?;ʻ ?C;# ʻ ʻ S G ? <D ;ʻ SV
S ʻ @#ʻ @?=@ ;= =Aʻ # # ?= ʻ#?ʻ#B ʻ ! ;!# = ʻ ! @?=
+> # ʻ
20ʻ '> =C# ʻ :ʻ d+ @8 = #?;ʻ !?;ʻ#B ʻ ?C=# ! ʻ ?! SSʻ @#ʻ @?=@ ;= =Aʻ #B ʻ K; ! ; =@ ʻ ?!ʻ 8ʻ AB#
2 <>! -ʻ ⅈ ⅈ 9 KK ʻ K ʻ VG9
#Bʻ # " =ʻ D>ʻ #B ʻ ?= < ! ?= ;ʻ !?;ʻ ; @B =4 K ʻS S.ʻ @#ʻ @?=@ ;= =Aʻ #B ʻ A !8 ; ʻ ?!ʻ (= 4 L
Sʻ @#ʻ = =#ʻ #B ʻ 8?> 88ʻ C; =Aʻ = ʻ / @" =Aʻ ?! ; ?= ʻ Q@ʻ 7
;; =Aʻ = ʻ (8<?= ʻ$ B ʻ SUʻ @#ʻ !?;ʻ (C< < ;ʻ A #; # ?= ʻ = ʻ+ !@B ;A =A
*(ʻ @#ʻ =ʻ ! ?; ʻ ?!ʻ #B ʻ ?C=# ʻ?!ʻ 2 >< ⅈ=?#ʻ %; = ! ;; =A ʻ @# ʻ SV
; @?; `ʻ S 2 ;; =#ʻ #?ʻ ; ʻ K;?@ ! ʻ ?!ʻ %; ?=ʻ A = #ʻ #B ʻ
K;?# @# ?=ʻ #?ʻ < 8#?=ʻ ?!ʻ 1 =" 88ʻ +C" ʻ?!ʻ) ?; ?=ʻ = ʻ#B ʻ & ;8ʻ ?!ʻ (!?;#Bʻ SVS

ʻ =C# ʻ KK ʻ K ʻ =C# ʻ :ʻ d/ # # ?=ʻ ?!ʻ K ; ?= ʻ ! = ʻ = ʻ !?; 9ʻ 87ʻ
(;ʻ / #; @"ʻ A 8 > ʻ !>= ʻ ; < ## ʻ :ʻ ! C; =@ ʻ ! C8# -ʻ KK ʻ K ʻ U
A= ʻ D>ʻ #B ʻ & ;8ʻ ?!ʻ (#; #B;C ?; ʻ = ʻ D>ʻ #B ʻ %B ʻ #B ʻ ?!ʻ ' A =@ ʻ Q@ʻ # " =ʻ K ʻ SVS
?<< ! ?= ;ʻ !?;ʻ & 8; ==>ʻ ʻ K ʻS

=C# ʻ ʻ KK ʻ K ʻ 87ʻ ;
#Bʻ ?!ʻ ' A =@ ʻ Q@ʻ # " =ʻ K ʻ SVS
S ʻ + @; #ʻ =ʻ ! ?; ʻ ?!ʻ 2 8# ;ʻ B 8>ʻ ?!ʻ + ;>
A = #ʻ ⅈ B ;8 ʻ $ = ʻ ?!ʻ O?= ?=ʻ) =#8 L
< =ʻ
ʻ @#ʻ =ʻ ! ?C; ʻ ?!ʻ K# =ʻ 2 ' <ʻ C;= #ʻ ?!
8!?C; ʻ SVU
ʻ + @; #ʻ =ʻ ! ?C; ʻ ?!ʻ (;ʻ 2 ' <ʻ (B ;Kʻ ?!
(@?# @; Aʻ A = #ʻ 8 F = ;ʻ & ;8ʻ ?!ʻ C;; >ʻ
= ʻ / #; @"ʻ & ;8ʻ ?!ʻ (#; #B<?; ʻ SV

20ʻ =C# ʻ [KK ʻ K ʻ * 8 =C# ʻ :ʻ d/ ;?K? 'ʻ !?;ʻ ; C@ =Aʻ #B ʻ ==C 88ʻ 87ʻ <
& ;8ʻ ?!ʻ) 88?E >ʻ = ʻ (;ʻ +C=@ =ʻ <KD 88ʻ F9 ; =# -ʻ KK ʻ K ʻ
@C ʻ :ʻ ; ;ʻ = =#ʻ (< =ʻ K ʻ < #ʻ ?!ʻ #B ʻ @ ʻ ?!ʻ #B ʻ ; #?; ʻ ?!ʻ $?;! ; B ; ʻ
#?ʻ #B ʻ / ; >ʻ ?C=@ 'ʻ :ʻ 2 ;; = ʻ #?ʻ @ # ʻ 2 #9ʻ
= ! ʻ A = #ʻ #B ʻ +C" ʻ?!ʻ) ?; ?=ʻ K ʻS S
S ʻ @#ʻ &FK8 = #?;>ʻ =ʻ ! ?; ʻ ?!ʻ ?D ;#ʻ C= =A9
B < ʻ ?!ʻ C@B =B ; >ʻ !?;ʻ K ;! @# =Aʻ = ʻ ;L
D?C;ʻ #ʻ (8#@? # ʻ S S
ʻ @#ʻ &FK8 = #?;>ʻ = =#ʻ #B ʻ # ?= 8ʻ &FL
@ ʻ S S
. ʻ @#ʻ = =#ʻ ! =Aʻ ?=@8C ʻ C! ʻ S S
. ʻ @#ʻ = =#ʻ #B ʻ (A= =Aʻ ?!ʻ *=# ;8?@C#?; ʻ << 9
#8>ʻ !# ;ʻ ?# =Aʻ S .
.Sʻ @#ʻ = =#ʻ #B ʻ O?; ʻ ?!ʻ (! ?=ʻ ! ## =Aʻ =ʻ #B
C## ;9B?C! ʻ D>ʻ #C;= ʻ [S .
..ʻ @#ʻ = =#ʻ ?@ # ʻ #B ;ʻ (CD!@; D =Aʻ ?!ʻ #B
=C# ʻ?!ʻ + D # ʻ S .
.Uʻ @#ʻ = =#ʻ #B ʻ O?; ʻ ; = ;ʻ ʻ=?#ʻ O =A
#B ʻ) C## ;ʻ D =@Bʻ S .

20ʻ =C# ʻ :ʻ d/ # # ?=ʻ ?! 8 F = ;ʻ ?=;?ʻ ?!ʻ =C# ʻ KK ʻ K ʻ
;@;?!# - KK ʻ K ʻ .
ʻ @#ʻ !?;ʻ /?8 ʻ ?= > K ʻ

G.4 < # =' i ?C; ' ?i' J?B=' 2 ;' ?i E#?C=' X=?#
87' '; ; @?; ` ', b' K' ..

V ' @# =' i ?C; ' ?i' (;' ;@B D 8 ' ?@"DC;=' ?i
0 =A#?C=' X=?#; @?; ` ', Ò ..
V ' @# = =# i ## =A' = '*=# ;@?==< < =A'E #B
@8 ; ' %; #?; ' Ò ..
VS' ?<< i ?=' i?;' AC8 # ?=' ?i'JC @ #?; ' ..
V. ' @# = =# /;?@C; #?; ' ?i' i A= # ?=' =
/; @ K# ' ?i'(i = ' ..
VU' @# FK8 = =A' = ' &F@ K# ?=' =' #B ' @#
= =# / #;?= A 'i?;'#B ' /;? ? #; ' ?i' B 89'
#?= ' ...
V ' # i @ # ?=' =' i ?; ' ?i'J?B=' & ;8 ?i'%E 9
8i ' 0?; ' AB' B =@ 88?;' ?i' #B ' 0?; B K'
= ' A 8 #>' ?i' +C<i ;<8 =A' ...
/;?# # # ?=' #B ' & ;8 ?i' 8 88 0?; ' /; >' (8
A = # #B ' < 'X=?#; @?; ` ' ...
V ' # i @ # ?=' =' i ?; ' ?i' ;A ; # ?C=# i ' ?i
?#B ' = ' J?B=' 0?; ' 0 8>' B ;' ?=' ?i' #B '
$+-' ,'' /' = ' ?8 = ' ...
VW' # i @ # ?=' =' i ?; ' ?i' #B ' ;@B =# ?<L
K =>' ?i' & =DC;AB' ' ..U
/;?# i# # ?=' A =i# #B ' i < ' ..U'0
V ' # i @ # ?=' =' i ?; ' ?i' #B ' C;AB' ?i' #B
=?=A # ' Ò ..
VG' # i @ # ?=' =' i ?C; ' ?i' #B ' *=@?;K?; # ?=' ?i
#B ' i; < =' &8 8B ; ' ?i' & =DC;AB' 0' ..
/;?# i# # ?=' #B ' 0 = ' ;@ # $8 8B ; ' A = # #B '
i < ' ..

=C# ' ;' d/ # # ?=' ?i' J?B=' (8 W ;' K# =' ?i' .U'
#B ' ;# 88 ;> -' ' KK ' K ' GG
=C# ' ;' d ?#=< i ?' K;?' =NC ; = ?' ' @< ' 8'S.'
')8 =@? -' KK ' K ' G
?<< ## ' i?;' 88 ' = ' /;?# #' ;')8 =@? ' ;
$ = ' = ' $?;i 8#C< ' ;Ò(C< <?= =A' K ;# ' ;
K# =' (8 W ;' ;Ò @# ' ; < ## ' #?' #B ' ?<L
< ## ' K' ; U
=C# ' ;' d ?i' ?= ?8 =@ 'i;?<' #B '&# # ' ?i'/ ;8 L
; i ?i' ?= ?8 =@ 'i;?<' #B '&# # ' ?i'/ ;8 L
< =#'#?' ' #>?=' #B ' + #B' ?i' #B 8 # '
3C =' * * ;>?i' D8 i ' < <?;>' ;'(C< <?= =A'
K ;# 'D i?; '#B '/ ;8 < =# ;Ò/;?# # # ?=' i?;
' ; < ' ?i' O E' ;' C;AB' ?i' =' #<#B ;' & # ;'
: ;=?@"' A = #%C ' @?C8#;> : /?C; ' A = #
#B ' O?; ') ; >' K' ; .
* =C# ' ;' d K?;'# ?i' #B ' ?<< ##>' ?i' %; ' 8 '
= =#'#B ' 88$?;@ ' 9 9/K' K ' GV9
#B' ?i' 88 A =@ '# " =' ;'(C< <?= =A' ?i' K ;L
' ;'/;?# # # ?= ' i?;' ; < ' ?i' O E' ;' + i9'
@Ci =A' 9?i' KK 8 ' ;' ;=?@"' A = # %'8 9'
@?C#; ' ; ' %B?< ' (" =' ;'/ #8 ;' A = #
(i?;#B' ;' $ 8@?= ';?i' 1 = ?;#B' ;'(CKK8 ' ;'
?<< i ?=' i?;' =NC ; =A' =' #B ' < ## ;' ?i'
)8 =@?' ;' ?E # ?i' / =@8?' ;Ò C#; " =A'
(B K ' ?i'E ;' K' . .
=C# ' ;' d ?#=< i ?' K;?' =NC ; = ?' ' @< ' 8'S.'
')8 =@? -' KK ' K ' G
?<< ## ' i?;' 88 ' = ' /;?# #' ;')8 =@? ' ;
$ = ' = ' $?;i 8#C< ' ;Ò(C< <?= =A' K ;# ' ;
K# =' (8 W ;' ;Ò @# ' ; < ## ' #?' #B ' ?<L
< ## ' K' ; U
=C# ' ;' d/ # # ?=' ?i' J?B=' (8 W ;' K# =' ?i' .U'
#B ' ;# 88 ;> -' ' KK ' K ' GG

-
?#B < >' A = #' D ;= #B>' :'0 >') ; ='
? K # 8'?!') 8 A?E' A = #'%?C='?!'*;E =A' :'
(@?##' ?!' ; =' A = #' H1 =W ' ?!' ? 9'
B CAB']:' \|' (8 W ;' K'4.
S' @#' =' ! ?;' ?!'& =' H) ; AD;' ;@B =#' =
& =DC;AB' '
= =#' /;?# #'!?;'; < '?!'0 E' :' ?<< ## '
!?;'; =A'#B '0 E

2%!' ><@ =C# ' 9 //7' /7 8 9
/;?# # #?=' & ;8'?!') 88?E >' !?;' K; @ =@>' :'
(CKK8>' :'(! ? ' ?C;= ' K'. 4
.' + @; #' =' ! ?C;' ?!' (;' 2 8 <' (@?#' ?!
; =' A = #') ?;A ' \|1 =W ' ?!' ? 4'
B CAB' ' ' . V9
'0?; '(#; #B= ;' = =#'B ' ;; ; ' .

2%!G>(=C# ' 9 9KK'K'
(! ?='#?' D ' ?C;= ' :'0 < # =A' C# ?= ; ' :'
(# # ' ?!' #B ' /?8 ' :' ; < = 8' K;?@ ! ' :'(;'
J < '(#C ;#' :'(;'J < ' < >'?!'0?A ' :'
?C=#;>'$8 B ; ' /9
U' @#' AC8 # =A' # # ?= 4D !?; ' #B ' K ;8 L
< =#' .
/; @ ?!' 2 = ' . S

2!%' =C# ' KK'K'
!! @ ;'?!'#B ' ;<>'9 9'(C<< ;'(! ?=' ?C;= '
:' =A' #B ' 0 E :9 8' D>' 2 AB# :9
; < = 8'K;?@ ! ' ''K'. S5

2%!' =C# ' 0 KK7'K'8?
' @#' ?=;= =A' #B '(C<< ;'(! ?=' # 88' #B
! ; #'?!'JC8>' . S4
?#B < >' A = #' D ;= #B ' 7. .

JC='. =C# KK'K'9
= =#' (CKKD ' :'0?; ' (#; #B= # ;' :'& ;8'?!'
8!?;#' = '?#B ; K'. .

%.'? =C# ' K/9' /7 S
= =#' #B ' (CKK8> : (B?;#' /; # K# ?= : ; L
< = 8'/;?@ ! ' :'J?B=' 88 = ;' :'; ="';CK#'
0 = ' :' C# ?= ; ' K'. .T

87'* =C# ' / /9' / 9 S
= =#' '0) = ; 8' /? #' !! @ ' :'&FK?;# =A' ?!'
@#C 8' :'/; @ ' ?!' 2 = ' :' ="';CK#' 0 = '
:'(#; C@B ='?!') 8 =" = \| K5. U

87'< =C# ' :'d/ # # ?='?!' #B ' =B D # =#' ?!' #B '
B ;'?!'*= ;= !'Q@-' 0 KK'K' S9
$?#B; =AB <'?!'/?C; ' A = #'0?; '); >' :' =9'
=C B\| =#' :'/? #' !! @ ' :'1 =A' ; =#' =' ;"L
= > :' B?K' ; =#' =' ;A>8 ' Q' #B ' * 8 ' :'
?#B < >' A = #' D ;= #B>' :'(? K' E?;"' ='
0 #B' :\| C;AB' ?!' *= ;= !' A = #' @+?= 8 '
?!' 1 KK?@B' :' 8 KB =#' ?!' 0 =A#?C=' :' C=9'
=AB <' ?!' ?D ;#8 = ' :' ? K # 8' Q' %; '
?!')8 A?E' :' AA A ' B?; ' :' < 8#?=' ?!'
1 =" ' ' T K'. U

' @#' = =#'#B 'JC # @ ' ?C;# K'. ' G 4
V' @#' = =#' /; =@ K 8 ' = ' C# ?= ; I**' 3%7@<

=C# ' \| KK'K' a' ='8?
?# ?=' = =#'#B ' 8 CAB# ;'?!'#B ')8 =@?'< =' :
& ;8'?!' ; 8D =' : ; !'?!'#B ' BC;@B' :'
&FK?;# # ?='?!' @#C 8' :'$?#B; =AB <'?!'/?C;
:'2 # ?='?!'0?=A'(CAB#?C=' A =!#' ;
?!'(CAB#KC=B 88' K'.

=C# ' 9 //9 /9 U' JC='
; !'?!'#B ' B<9@B' : (;' J < '(#C ;#' :
0?; '(#; #B= ;' :'/?8 ' ! 8 : & ;8'?!' ?FL
DC;AB' = ') 88?E >' A = #'#B '& ;8'?!9O?#B =
:' #>'?!'& =DC;AB' A = #' &= ' h0 ?' :
&=@?C; A =A'%; : & ;8'?!' ! ' ' :'0 = 7'
8> =A';C=; A ' 7 K'. V4

=C# ' :'d(CKK8 @ # ?='?!' = ; E' 2 # ?='Q@' <'
; = ; -' KK' K' U
?#B < >' A = #' D ;= #B>' :'/?8 ' 88' :'& ;8'
?!' 8!?;#' :')8 =@?' =NC ;>' :' ; =A =A' ='?!'
E ! ;'#?'& \| : \|') D; 8'(<K8 : ; B ; 9'
# = ' ' 8 '^:' @?<< = # ?='='! ?; '?!'
J ='/?;# ;! 8 ' :'% " =A'?!'(8<?= ' K'.

=C# ' KK' K' 4' 87'*(
%B ')8 =@? < =' :'(CKK8>' :'/?8 ' '*' K'. G
' @#' AC8 # =A' #B ' (8 ' = ' / >< =#' ?!
="';CK#'& # # ' . G
& ;8' ?!' ?FDC;AB' Q') 88?E >' A = #'#B ' & ;8'
?!'0?#B =' :') ; ?='?!'$?;#' 2 88 <' : ?C=L
#;>'$8 B ; ' :'/ K # ' .V

=C# ' ' 0 \| KK'K4' ' JC='
0 # ;' !;?<' #B ' 1 =A' ; ' :'(8 CAB# ;' ?!'#B '
)8 =@ '< =5' K'.V
' @#' !?;'(F' ?= #B ' (CKK8>' CK?=' #B ' 0 =
=#' \| ' .V
% " =A' ?!'(8<?= ' :'&FK?;# # ?='?!' @#C 8' :
$; 'NC ;# ; : %;?## ;'?!' ?;#?=B ' : C;AB'
?!$?;#;?! ' ' \| .V

=C# ' KK'K' 5' J ='
/?8 ' 88' :'1 =A'0 ## ;'#?'D 'K; =# ' K'.V ' ;

=C# ' KK'K' V
%B ')8 =@? < =' :'& ;8'?!' ?FDC;AB' A = #'#B '
& ;8'?!'0?#B =' ' 0 :'.V ' 0

=C# T KK'K4' V' \| 6\| '
%B ')8 =@? < =' :'%B '/?8 ' K'.VV
'P @#' !?;' ' ?<K =>'%; =A' #?' !!; @ ' =
4#B '*= ' .VV
%B ')8 =@?'< =' :' ?<<C= @ # ?=' ?!'%; ' :
& ;8'?!' ;? 8D ='.

=C# ' KK'K' ' 87'
' @#' ?C;= =A'#B '(! ?='# 88'#B '! ; # >'?!
? <D ;' G ' K'.

G 4 + <K # ;' ?i' / #8; ;' A = # (i?;#8' :' ?<7
9 87' ' < ## 'i?;' K # ii ;' :' ;#C; ' ;' @#
0' 7 ' K .
S' @# i?;' /?8 ' ?= >'
& ;8 ?i' ;? 8D = :' 1 =A ' =# ' =' ;"= >' :
& ;8 ?i' ?FDC;AB' A = # #B '& ;8 ?i' 0?#B =
. U
.' @# =' i ?C; '?i9 (;'J < ' < >' ?i' 0?A
= ' B ' O >' A = # #B ' & ;8 Q ?C=# i 9?i'
(\ i?;#B' 82<

J?=‖ ' =C# ‖' 9 //7 /9
U' @#4 A = # i KB =>' ‖ K'.
‖ 5 @# A = # *;; AC8 ;' K# <' = ' ;; A
. V
' @# A = # /;?KB = = i ' . V
' @# i?;' #; ==A' #B ' /;?i = # ?=' ?i' #B
0?; 9 >4 D>' " K =A' 2 "8>' ;@ # ' ?=
?= >'Q (#C; >'
%B')8 =@? < =' :' (8# CK?=' (8# :'& ;8 ?i'
8i?;# :'%B ' =# :'&FK?;# # ?=' ?i' @#C 8
:' #>' ?i' & =DC;AB' A = # & ;8 ?i' 8 88
9 ' .

' ' ' ' ' ' '
' *=#;C ;' =#?' BC;@B ' :' @ =# BC;@B ' . '
* ' @# ?i' + K; # ?=' A = # ‖ %B?< ' ; 9
>4 ‖‖ = ; E' C;:= #Q ‖ 8 F‖%B?< ?=4
= # ;' ‖K' . G9
?i' 8 ' ' K4 U

.. @# =' i ?;' ?i' J < ' 0> '' ?i') ; =' i?;
&; @# =A' ?i' =Ci @#?;' ' ?i' >8 ' = ' ?i'
DD # = ' ;' " = ' U G
. @# =' i ?;' ?i' (;' 8 F = ;' ?K ' ?i' 1 ;i
QB ' ?K ;#= ;' i?;' &; @# =A' ' B8 =Ci @#?;>'
?i') C=' /?E ;' = ' 88?<' US
. @# A = # *=#;C . G9 4 ' @# =' i ?C; ' ?i'#B '& ;8 ' ?FDC;AB4
0 A 8 88 = ' < i ?=' #B ; #?' US) 88?E >4 =A#?C=' = ' 1 88>' A = # #B '
. @# =# O = '8> =A' C=9; A' US /;?# # # ?=' #B '& ;8 ' ?i'0?#B =' A = # #B '& ;8 '
=C# ' ↑ 9 KK'K'** 8i' @ & ;8 ?i' ;? 8D = '
= =#' < " A'CK' #B ' 3C?# ' ?ii ; '#?' #B ' 1 =A' & ;8 ?i' 0?#B =' A = # #B '
:'0 C[?88' < 8#?=' :'%B ')8 =@? < =' :' ?i' #B ' 1 =A ' ?' A ' ?i' 8 S ' . =' i ?C; ' ?i' #B ' 1 =A ' ?' A ' ?i' 8
KK ;' = ' B ;' :' @?< < = # ?=' =' i ?; ' D . GU
?i' #B ')8 =@? < =' ?i' #B ' 1 =A ' ?' A ' ?i' 8 SS' + @; # =' i ?C; ' ?i' #B ' @?B ;' ?i' (;'%B?L
< ' @@D8 ?=' ?i' ;=?@" A = # (;'%B?< '
@@?8 ?=' ?i'% 88 @?C8#;>' .G
=C# ' 9 KK'K'G9 8i' =@ & T'?i' ; 8D = '*= @#< =#' ; ' U V9
B/' 8 F = ;' ;@8 >' B8 = # ;' # / # ;B ' :'
B ‖) 8D ;'# < >' B8 = # ;' # +>@ ' K'US.
' @#' ; <? =A' B ‖ ;'= ; '%B8% =W @' B8 = # ;'
?C#' ?i'#B ' /; D>#; ' ?i' =A#?C=' US.
. ' @#i?;' ;) = ; @ ?@@ @# ?=' =' i ?C; ' ?i' #B
C;AB' ?i' C@@ =' US.

=C# ' KK'K' G9 8i' @
; i ' D>'#B ' / ;8 < =# #?' #B ' * =A'#?C@B =A'
#B ' B@C; ;' ?i' #B ')8 =@? < =' : ' @?<< =L
?=' #?' #B ' 1 =A' =' i ?C; ' ?i' #B '0 ; ' ?i'
) ; =#' K'USU
' @#' i?;'‖ D # =A' #B ' i; C ' ?i' KK ; =
; ' USV
U ' @#' = =#'#B ' K # # ?=' ?i'$ = ' US
U ' @#' i?;' ' B8 =Ci @#?;>' ?i'% 8 # ' / K ; ' USG9

ʃ " . :2+23⁄3⁄–ʃ 23⁄!–

ʃ

ʃ

ʃ

/ʃ * ' J+ & +ʃ *

ʃ

SU

& # @#/ ;

G 4 + , 4
K; S , , 2 / *0*(

8 8K S
88) U SS
8< . <
85 S SS.
. SS.
8> SS.
. GG SS.
G SSS
U GV SSS
U SS
US G SSS
U. SS
<< S.
U 9S. 7

G 4 + , 4
(K#. ***(&/%

KS.
S.
S.U
S S..
G S
S.

9

& # 0 @# / 98

G.4 + , ***4
K; , *** / *0*(

-K S .
S S .
. 7S U
U H S
0 S S
U S S
V S
S
G [V S
7 S
S
S S >
. SS
U S. SV
0SU
S S
V . S S
. S .
.S .
S 0 .. S .
S .U S .
S. .. . .
SU . .
S U . U
U . U

0

& # G.4 @#/ ;

G.4 + , ***4
K; , *** / *0*(

US K .
S U. .
U . G
. U .
.
U . G
.S . U
..
.U VS ..
. V. ..
..S
.SU
.SU
S .SU
U U .SV
U V
US G .U 7
U .U

& # @#/ ;

G 4 + , 4
> *, **

8K . S
U .
0 . S
.
V .
. G
G
V
G .
S .
U .
S . V
. V
U .
S U

@

& # G @#/ ;

G 4 + , 4
> *, **

SVK U
S U
V U V
U V
. U V
.S U G
0. US
. US
USV
U US
US U.

S U
.S U S
U S
U

0

& # G 0 @#/ ;

G + , 4
> *, **

KU .
.S .S U Y
.. U
.U U
. U
. U
.V U
.
.G V U S
U U S
U VS U S
US $ U .
U. 0 VU U .
UU U S.
U S. 4

ʃ ʃ

ʃ

ʃ ʃ @@@@@ ʃ KFʃ

ʻ ʻ

ʻ ʻ ʻ ʻ

ʻ $Eʻ %

?= =# ?ʻ# # # ʻ KC ʻ& =DC;AB4ʻ F ʻ ;# 4ʻ "# $$$ ⅈ/ Aʻ ʻ (

/ ;8 < =#C<ʻ# =#C<ʻ KC ʻ& =DC%ADʻ ʻJC= 4ʻ "# $ $ʻ % :ʻ G ʻ

/ ;8 < =#C<ʻ@?=# =C #C<ʻ KC ʻ& =DC;AB4ʻ F ʻ K;8 4ʻ "& $#ʻ :

/ ;8 < =#C<ʻ@?=# =C #C<ʻ KC ʻ& =DC;AB4ʻ ʻ(K# <D; 4ʻ "# $#ʻ :ʻ S.

/ ;8 < =#C<ʻ@?=# =C #C<ʻ KC ʻ& =DC;AB4ʻ # 8ʻ K;8 4ʻ "# $# ʻ S.

ʻ ʻ ʻ

/ ;8 < =#C<ʻ@?=# =C #C<ʻ KC ʻ& =DC;AB4ʻ,?ʻ 4ʻ "# $#(/ Aʻ .Ui

, / + %+ " ʻ ʻ O

7

ʻ ʻ ʻ ʻ

ʃ

ʃ ʃ ʃ ʃ

5%%7/8+#%/

0%

,* ʻ +*&ʻ %**4ʻ ʻ+ʻ 4+ 40 , , , 8 ,

%(ʻ 1+ʻ 3&+& (ʻ ?!ʻ #B ʻ #=Aʻ ?!ʻ
#B ʻ &(% %&(ʻ $ʻ % &ʻ 1*)+ ʻ $ʻ
(%0 +ʻ ?8 =ʻ =ʻ AC=ʻ #ʻ& =DC;ABʻ
#B ʻ !?C;# >#Bʻ + >ʻ?!ʻ ;@Bʻ Hʻ ^ & AB#>ʻ
=>=ʻ @ 88 ʻ >ʻ@ ;@C8 ;ʻ 0 ## ;ʻ!;?<ʻB ʻ AB9ʻ
=ʻ% &ʻ$1* &ʻ $ʻ)&ʻC= ;ʻB ʻ
B =ʻ =ʻ (88ʻ#?ʻ#B ʻ0?; ʻ?!ʻ#B ʻ 8 ;A ʻ =ʻ
?D8#>ʻ =ʻ#?ʻ#B ʻ B ;!!ʻ@8 ;"ʻ!?;ʻ#B ʻ L
; 86ʻ (B>; ʻ Qʻ #?ʻ #B ʻ #?C=ʻ @8 ;"ʻ !?;ʻ #B ʻ
?> 88ʻ C;AB

+'1&(

+C"ʻ?!ʻ < 8#?C=ʻ
+C"ʻ?!ʻ3C = D ;;

3'&((&(

;NC ʻ?!ʻ+?CA8 ʻ
;NC ʻ?!ʻ #J?'

&0&(

&;8ʻ?!ʻ ;A>8
&;8ʻ?!ʻ ; E!C;
&;8ʻ?!ʻ&;;?'
; B 88
(C#B ;8 =
;;
?;# C=
)8 =@ <
&A8 =A#?C=
! B
0 =8 #BA?E
?<
+C<! ;<8 =
0 C ; 8
0?#B =
;8
88 = ;
0 =
== = 8
/ =<C;
(8" ;"
%E
1 =@ ; =
8@ ;;
$?;! ;

00ʻ?!ʻ#Bʻ0?; ʻ?!ʻ#Bʻ 8 ;Aʻ =ʻ ?D8#>ʻ
?<<! ?=;ʻ!?;ʻ (B>; ʻ =ʻ C;AB ʻ?!ʻ#Bʻ
1 =A ?<ʻ ?!ʻ (@?#8 =ʻ *=ʻ#B ʻ < #=Aʻ?!ʻ#Bʻ
& # # ʻ#Bʻ!?C;# =ʻ+ >ʻ?!ʻ ;@Bʻ & AB#
=>=ʻ> ;

0&)*&

*(/(

(=# = ; E
)8 A?E

*(/(

& =DC;AB
+C=" 8
C;; >
?!
+C<D8 =
*8
;"= >

% ;;
+C= ?= 8
1 =#?;

?C %

1 =<C;
;DC#B= #
F =!??;
% ;D #
CK

0 +(

0?; ' (=@8 ;'
&8KB =A #?## '
,X #
?!
%?;KB @B =
0 = ?;
8< ; =K@D
8 =#>;
; ;?!
8 '
$?;; !# ;
;A =>
+C=" 8
88B =
;< @B
+C!!C
?88?
8C#B =
C#B ;!??;
88 = =
1 EE ;"

((& (' $ ' (&(

%B ' B>; '?!'& =DC;AB
(!' J < '$?C8 '?!' ?' =A#?='
(!' J?H' #8 = '?!' 8; A'
=A#?C=
(!' ?7' (=@8 ;'?!' (# = ?='
%B ' 0 ; '?!' ;< #?C=
;E @"
(!' ;@BZ' ?@"DC;='?!'0 =A#?='
(!' / #; @"' ?< '?!'/?8E ;#
?FDC;AB
(!2 H'&88 ?#'?!' (#?D '
(!' / #; @"' (@?#'?!' =@;C<
(8" ;"
(!' 2 I' (@?#'>?!' ?!' ; ='
) ?;A '/; =A8 '?!'%?;E?? 8
/ D8
(!' ;@BZ' C;; >'?!' 8 @"D ;?=>'
+ ' C % >'?!' (# =D?K
0 = ;"
%B '0 ; '?!'0 < =A#?C='
(!' + = 8' ;< @B 88'?!' 8 8 9
+C<!;
(!' J?P' + 8W 88'?!')8 = '
(!' J 5J?B= #?C= '?!' 2 #; E

2 A#?C=
(!' = ; E' A= E'?!'0?@B= E'
2 P' !+?CA 88'?!') ;#B8 =
;
%B '0 ; '?!' 8 ;'
%B '0 ; '?!' (" 8<?;8 '
+C<D ;#?C=
8 C ' < 8#?='?!' ;= '
2 H' ?8NCB?C='?!' ; A#?C=
C#
(7J Z' (# E ;#' (B ; !$ '?!' C# '
+ ' ?>8 '?!'1 8DC;=
=!; E
(;'J?H' FE 88'?!'/?88?@"'
2P7' K= =AB < '>?7'?!' ; A = '
(# ;8 =A
(!' B ;8 '&; " ='?!' 8 '
J?H' ?E #?='>?!'?!' 8"'
0 =8 #BA?E
%B?Z' +;C<<?= '?!' @@ ;#?C='
/ #; "' C;; >'?!'0 =A #?=
/ ;#B
J?B=' 8 ='?!')8 = A '
J 5' < >'>?!'?!' <! '
1 =" ; C
(7%B?Z' C;= #'?!'0
8 F7' ;DC#B= #'?!'1=?F
D ; =
(!'J?H'$?;D '?!' ; ;'
J 5' ? ;'?!' (#?==>'E??
*- ;-
%B '0 ; '?!') ; =#'
+C=@ ='$?;D '?!' ?88? @=
;=
(!' CAB' <KD 88'?!' 8 ;'
J?B=' >'?!'0?@B8?>
;?< ;#>

;A>8
(!' + C=Z' <KD 88'?!' C@B =D; @"'
J?P' <KD 88' K# = '?!' ;; @"
$>!!
2 j' = #;C#B ;'>?!'?!'.@ 8"'
J?P' + <K # ;'?!'/ #8 ;
$?;!! ;
(!') ?;A ' % =W '?!' E#>8 '
+ '&; " = '?!'+C==
<!$
(!' / #Z' A 8 '?!' ?>= '
8 F!' +C!!'?!' ; @?
(# E ;#;> ?!'1 ;"C D; AB#'
CAB' * *!AC!!?@"' ?!' C!@?
(C#B ;8 =
J?P')?; ?='>?7'?!'&<D?'
<')?; ?='?!'+ 8!?88>
#B=

&8A =
%B '0 ; '?!' ;? '
%B?< '+C=D ;'?!'); =A

'*(=

;"= >
2 ; A ?! ; >
8 @"< = =
+ ; C@ ?! 8 @"< = =
?!

1 =;?!
(+ ;=?# ?! J7 '@

7 = =7 A $ ') (

+,$! /
/ ;#B
+C= D ; =
(# ;8 =A
0 = #BA? K
(= ; E
) 8 A?E
;
=A#?C=
+> ;#
1 ;"@ 8
?=;?!
?CK ;
#<#B ;& # ;
+C<!;
*=C ;=
;C=# 8 =
*=C ;" #B =A
1 =AB?;=
; @B =
*; =
J DC;AB
1 ;"@C D; AB#
2 A#?C=
+C<! ;<8 =
/ ## =E <
(8" ;"
+C<D ;#?C=
=!; E
+C<D ;
0 = ;"
D ;D;?#B?@"
&8A =
/ D8
; '
% =
C8;?!
<!
2 B #B?;=
$?;! ;
?#B >
;=
$?;;
C#B ;A8 =
?;#BD ; @"
= #;C#B ;E # ;
C' =
0 C ;

;(# $ 88
) ?;A (# ;8 =A
?D ;# (< #B
J < !!8 # ;
8 F = ;) ?; ?=
E 1 ==
2 88 < AA =
J < (< #B
J?B= = ;8D=
J?B= C ;
J?B= (8 AB
+ B; !#
J?B= ?!E# 8
J < C
?7 8 ' ?! ;8" ; ?
+ (K =@ ^
J < 1 == =
J?B= C#BD ;#
8 F = ;)
8 F = ; (K ## 88
/ #; @"' 2 88 @
=;>' C8
8 F = ;
<' = 8 >
J?B= &E ;#
2 88 <' ?8#; =
(B ;8 8" #
) ?;A (< #B
J?B= C;; >
J < (<?' #
2 88 <' ?@B; =
J < (< #B
%B?< < 8#?C=
/ #; @"' (# = '
J < (# E ;#
J?B= C ;
) ?Z ?=@; !8! ?! ! C@B?K
2 88 <' ?!
2 88 <' &; " = '
2 8# ;(# E ;#
/ #; @"' C; ?@B
J?B= ;= A
?D ;# (# E ;#
J?B= ?!
%B?< %C' ?@B
J?B= (@?#
%B?< (# E ;#
?D ;# 8 ' = '
J < A 8
+ #8 =

1 =#?; E 2 88 @ 9
== = ;>@ 8 ;
0?@B< D = %B?< 1 == ||
(=NCB ; J?B= ?!E 88
EA ?E > J <) ?; ?= '
1 88; ==>) ?;A #?=
$?;#;?! ?D ;# *==
+ =AE 88 1 == #B ||1 =W
+?;=?@B) ?;A) ?; ?=
3C = ! ;; 2 ' 8 = < 8#@<5
*= ; ;> E ;?C=
*=C ;C;> J?B= = ;!?=
2 "
1 ;"E 88) ?;A %; 88
*= ;D ; 2 88 <' #
(#; =; E ; (J?B= + 8;><K8 ||

$%& K; > ; #B ;?88 E ; @ 88 @#

%' #B @ '<A ?! #B ;?88 #B |/;?! # # ?= ! # ;
< =# ?= E ; <

& 2 2 88 @ ?!*=A8 #?C= ? < < ! ?= ;!;?< +"3-,32L
#B DC;AB ?! 1 =#?; K;?# # = = < = 9 3"7, 27-1M
B 8! ?! 8 F = ;8 # ;@BD !8 ?K ?!)8 A?E K; @ =^ ||
%B # #B @ 88 =A ?! J?B= ;@BB B?K=!)8 A?E
=#B ;?88 ?! #B < # =A ?! #B & # # < AB#
=?# K; C A #B 8 8 F = ;?! B ; AB# #?
#B ! ;@BD B?K; @"' ?!)8 A?E = #B T
J?B= K; ! =# ;@BD B?K ?!)8 A?E K;?# # =99
8 @?=#; ;

% &' & ;8 ?! (C#B ;8 = K;?# # #B # #B @ 88L
=A ?! =>?#B ;& ;8 D !?;B < < AB# =?# K; L
C A B ; AB# ?! K; @ =@>D !?; 88 & ;8 =
#B 1 =A ?< 4

% &' & ;8 ?! &;;D ' AB @?= # D8 K;?# # '
#B # #B 88 =A ?! =>?#B ;& ;8 D !?;B <
< AB# =?# K; C A B ; AB# ?! K; @ =@>D !?;
88 #B & ;8 EB?E ; @ 88 D !?;B <

% &' & ;8 ?! ;;' / ;?# # A = # #B & ;8
?! ;A>88 D =A @ 88 = & ;8 =; K @# ?!
#B =# =@ ?! !?; ! C8#?;K # A = # #B 8 # '
& ;8 ?! ;A>' # = =A C=; C@ = 8>" 9
E > K;?# # #B # #B 88 =A ?! #B ! & ;8 4
?; =>?#B ;& ;8 D !?;B <' < AB# =?# K; C A
B ; AB# ?! K; @ =@>D !?; #B & ;8 ?; =>
?= ?; 88 ?! #B & ;8 @ 88 D !?;B <

% &' & ;8 ?! ;A>88 K;?# # =#B @?=#; ;

J < A 8 ?< < ! ?= ;!?; #B DC;AB ?!
C' = / ;?# # = = < = D B 8! ?! #B & ;8
?! !! =8 #?;B ! #B ; #B # #B @ 88 =A ?! #B & ;8
?! ;8 > D !?; #B & ;8 ?! !8! =8 #?; < AB#
=?# K; C A B ; AB# ?! K; @ =@> D !?; #B |
& ;8 ?! ;8>

% &' & ;8 ' ?!' 0 = ' K;?# # ' #B #B ' 88 =A' ?!' #B ' & ;8 ' ?!' 88 = ;' D !?;' B <' < AB# =?# K; C A ' B <' ?!' B ' ; AB# ?!' K; @ =@>' !?;' #B ' & ;8 ' ?!' 88 = ;

% &' 0?; ' 1?!' ' /;?# # ' #B #B ' @ 88 =A' ?!' #B ' 0?; ' @ 88 ' D !?;' B <' <>7 =?# K; C A ' B ' ; AB# ?!' K; @ =@>' D !?;' 88 0 ; ' =' J` ' 1 =A ?<

% &' 0?; ' ; ;? 'K;?# # ' #B #B ' 88 =A' ?!' #B ' 0?; ' 8< ; =?@B' #B ' 0?; ' 8 =#>; ' = ' ?#B ;' 0?; ' EB?' B ' =?' ; AB# #?' B ' @ 88 ' D !?;' B <5 < AB# =?# K; C A ' B ' ; AB# ?!' K; @ =@>' D !?;' #B ! ' 0?> ' = ' ?#B ; 'EB?' B '=?' ; AB# ' ' 5

% &' 0?; ' 8< ; =?@B' K;?# # ' #B #B ' 88L =A' ?!' #B ' 0?; ' 88 ' D !?;' B <' < AB# =?# K; L C A ' B ' ;>7D!' K; @ =@>' D !?;' 88 ?#B ;' 0?;

% &' & ;8 ' ?!' 88 = ;' K;?# # ' #B #B ' &8 @9' # ?= ' ?!' #B ' ?< ! = ; ' !;?<' #B ' B>; ' ?!' (# ;L 8 =A' < AB# =?#

) * ' ?<< ! ?= ; ' !;?<' #B ' B>; ' ?!' / ;#B' K;?L # # ' #B #B ' @ 88 =A' ?!' =>' ?#B ;' ?<< ! ?= ; ' !;?<' B>; ' E #B =' #B ' 1 =A ?< ' < AB# =?# K; L C A ' #B ;' ' B>; ' ?!' ! ' ; AB# ?!' K; @ =@>' D !?;' 88 ? 7 B>;

% &' ?<< ! ?= ; ' !;?<' #B ' B>; ' ?!' !!>! ' K;?L # # ' #B #B ' 88 =A' ?!' =>' ?#B ;' ?<< ! ?= ; ' !;?<' B>; ' D !?;' #B <' < AB# =?# K; C A ' #B ' ' B`;; ' ?!' #B ' ; AB# ?!' K; @ =@>' D !?;' '' #B ' ?#B ;' B>; 9

%& ' ' (' *%' =A' KC## #?' #B ' ?# ' EB?' B?C8 ' K; ' =' J` ' < # =A' ' A; @ ' 2 88 <' C" ' ?!' < 8#?= ' ! =# >' #B ' K8C; 8 #>' ?!' ?# ' E ' 8 @# ' /; =#

%& ') *(' +,', , + ' -+ .' +' / ') *(' +' & ' 0' +, & 1, *%' =A' <? ' =' #B ' < # =A' #B #B ' & # # ' B?C8 ' K;?@ '#?' @B??! ' 8 ;" '*#' E '; K; ! =# ' D>' #B ' 8 ;" ' ?!' (! ?=' #B #' D>' #B ;' A !# ' EB @B' ; ' A; =# '#?' #B <' ' # <' *#' '#B ;' ; AB# = ' K; 8 A ' #?' D ' 8 ;" '#?' / ;8 < =# ' = ') = L ; 8 ' # =A ' = ' ?= =# ?= ' ?!' & # # 4' EB @B' A !# ' ; ' ; # ! ' =' / ;8 < =#' = ' @@?; =A8>' #B >' B ' @?= # =#8>' ; ' =' / ;8 < =# ' = ' ?= =# ?= ' ?!' & # # 4' ' #B ' < ' ?@@C;; ' = ' #D =A' =!C ; ' %B #' #B ' D =A' = ' &F#; L ?; = ;>' < # =A' ?!' #B ' & # # ' 8 ;" ' ?!' (#' ?= ' D>' #B ;' A !# ' @?C8 ' =?# K; # = '#?' D ' 8 ;" ' #B ;#?4 *#' E ' KC#' #?' #B ' ?# ' *!' #B ' @8 ;" ' ?!' (!9' ?= ' B?C8 ' D ' @?=# =?E ' #?' D ' 8 ;" ' #?' #B ' < # =A' ?!' #B ' & # # ' ?;' =?#4 C#' D !?;' #B ' ;?88 ' E ; ' @ 88 ' 7 ?; ' % =W ' ?= ' ?!' #B ' 8 ;" ' ?!' (! ?= ' !?;' B <! 8! ' = ' =' = < ' ?!' #B ' ; #' ?!' #B ' @8 ;" ' + ' K;?# #' %B #' #B ' NC !# ?= =A' !' #B ' 8 ;" ' ?!' (! ?= ' B?C8 ' D ' 8 ;" '#?' #B ' < #L =A4 = ' =>' ?# ' #B #' B?C8 ' D ' K #' #B ; = =#

+? ' =?#' K; C A ' #B ;' ; AB#' EB @B' K;?# # # ?= ' E ' < ## 4' = '#B ; !# ;' #B ' NC # ?=' D =A' KC#' #?' #B ' ?# ' *#' E ' @ ;; ' %B #' #B ' 8 ;" ' ?!' (!9' ?B ' B?C8 ' D ' ?=# =?E

% &' < # =A' ?!' #B ' & # # ' ?!' #B ' 1 =A ?< ' ?= ; =A' #B #' #B ' +C" ' ?!') ?; ?C=' = ' !?< ' ?#B ; ' ?!' #B ' K?K B' ; 8 A ?=' C= ;' B <' =#;C # ' E #B' #B ' 1 K =A' ?!' #B ' #8 ' ?!' & =DC;AB' ; ' =?# NC 8 ! ' D>' #B ' 0 E' ?!' #B ' 1 =A ?< ' %B >' A; =#' E ;; = ' #?' #B ' & ;8 ' ?!' 0?C#B =' = ' %E 8 ' #?' ; K ;' *< < #8>' #?' #B ' #8 ' ?!' & =DC;AB' = ' #?' ; NC ; ' B <' = ' ?#B ; ' ?!' B ' K ;!C ! ?=' #B ;' *=' = < ' ?!' #B ' & # # ' ?!' #B ' 1 =A ?< ' #?' ; <? ' ?C#' ?!' #B ' ! ' #8 ' E #B =' #C =#>' !?C;' B?C; ' !# ;' #B ' *=# < # ?= ' = ' #?' 0 ' #B ' B ;A ' #B ;?!' #?' #B ' = F#' ?< < = =A' ?!! @ ;' D =A' ' K;?# # =#' = ' B ' = ' #B >' ? =A' #B ' ! < 4' #B ' & # # ' A ' ! C; =@ ' #B #' B ' = ' #B >' ; ' = ' B 88' D ' &F?= ; ' = ' ! @C; ' '#?' =>' #B =A' #B >' B ' @# ' =' #B #' ?;' =>' ?#B ;' # # ?= ' @?=#; ;' #?' 0 E' ' D =A' K K #

2*. * + ' (' +, 3+*.+ ' 4 5 6+7 ' + ' +,' & ') ' +,1 .

% & ' D =A' +?CD8 ' = ' ?=#; ;# ' &8 @# ?= ' !?;' D ' B>; ' ?!' ;E @"' = ' ?! 4' = ' !?;' !?< DC;AB ' ' #B ' DC;AB' ?!' / ;#B4' D ; =' 0 =8 #BL A?E4' 1 ;" 8 4' = #;C#B ;' & # ;4' J D;CAB' = ' ?;#BB ;E @"' *#' E ' ?; ; ' #B #' ?< < ## ' B ' KK?>=# ' ?= 88 =A' ?!' ! !# =' K ;!?= ' EB ;?!' !>' ' #?' D ' = < ' D>' & @B' !8 # ' #?' ?= ;' #B ! ' &8 @# ?= ' #?' B ;' #B ' K ;# ' ?=@ ;= ' = ' #?' ; K?;# #B ;' ?K = ?=' #B ; = =#' = ' @@?; =A8>' #B ' 0?; ' ?!' #B ' ?D 8 #>' = ' 8 ;A ' + ' =?< = # ' #B ' ;@BD !8 ?K' ?!') 8 A?E4' #B ' * \NC@ ' ?!' #B? ' ' %B ' & ;8 ' ?!' * ;;4' %B ' 0?; ' ?! ' = ' ;< L @B 84' = ' #B ' ?< ! ?= ; ' !?;' B>; ' = ' DC;AB ' B =A' ; # ; ' #?' #E?' ! ; 88' ;?C< ' %B ' ?<L < ! ?= ; ' !?;' B>; ' + ' =? = = #' (\J < ' ?=#L A?< ; ' ?!' (" B=?;8 4' (\J?B=' FE 88' ?!' / ?88?@"' (\ %B?< ' C;= #' ?!' 0 > 4' %B?< ' +;C< <?= ' ?!' @@ ;#?C= ' = ' #B ' 0 ; ' ?!' ;? ' !>' ' ?!' #B ;' =C<D ;' = ' #B ' ?< < ! ?= ; ' !?;' DC;AB ' + ' =?< = # ' (\J?B=' 88' (\ B ;8 ' 8" #' J < ' !!8@#@B?;' 5 \ 2 88 <' *8 < 8#?C= ' = ' \ J?B= ' * C;; >' !> ' ?!' #B ;' =C<D ;4' EB @B' =?< = # ?= ' D =A' ; ' %B ' & # # ' + ' KK;? ' #B ;?!' = ' KK?>=# ' =>= ' ?!' #B <' #?' B ' ' NC?;C<4' = ' #B ;' ! ; # < # =A' #?' B '#?' <?;;?E' #' =>= ' ?!' #B ' @8?@"' E #B' K?E ;' #?' #B <' #B ; !# ;' #?' KK?>=# #B ;' ?C= ' > # ' ?!' < # =A

K<9 K?>=# '#?; ?=#; ;#9 ' &8 @# ?=

% &' & ;8 ' ?!' 0?C#B =' = ' %E 8 ' B =A' < ' K?;# #B #' #B >' B ' *=# < # '#?' #B ' + C" ' ?!') ?; ?C= ' #B ' !?; ' E ;; = ' ?!' #B ' & # # 4' *#' E ' ?; ; ' #B #' B ' B?C8 ' A ' B ' = E ;' =' E; # ' #?' <? %?E' A = #' # =' ' 8?@"

K`=" ?!)?; ?=-

% &' < # =A' ?C;= ' # 88' # =' ' ?@"' #?L <?;;?E

= ‘ #B? ‘ EB?’ B ## A? ‘ ?C# E #B‘ < ‘ #B ‘ K;?7
!# =# ‘ ?;‘ K !# ‘ %?’ A? ‘ D >?= ‘ ! ‘?;‘ · < = ‘
E #B = #B ‘ 1 =A ?< ‘ ‘ ?C,‘ ?@@ ! ?= ‘ B ## ‘ C ‘
X.h‘ %B # #B ‘ A ; !?= ‘ D ‘ @?= K8 #8 ‘ K > ‘ ?! ##
D>A?= ‘ :: ‘ = ‘ B ‘ 8 D ·#>‘ #?’ K? ‘ ?! #B ‘
A?? ‘ E #B =‘ #B ‘ #8 ‘ #B >‘ K8 !) ?; ?=

% & # =A‘ ?! #B ‘ & # # ‘ B =A‘ @?= ‘ 5 ‚+ 7 ‘ +,
#B ‘ K K ‚‘ A =‘ = ‘ !CD!@;> ‘ D>‘ #B ‘ +C" ‘ ?!
) ?; ?C= ‘ =‘ =!E ‚‘ #?’ #B ‚‘ ?; ‚‘ ? ‘ + @8 ‚‘ *#‘ <+ ‘ & ‘ ‘
‘ =?# #B ‘ < = ‘ ?! #B ‘ < # =A‘ #B # #B ‘ +C" ‘ B ‘ "6 "+5"87,6
?! @ # =A‘ ‘) ? :=?C,‘ ?! #B ‘ #8 ‘ ?;‘ =‘ =>‘ :2:-
?#B ‚‘ *<K8?>< =# ?;‘ B ‘ NC # =A‘ B ‘ ?< = ‘ #
#B ‘ #>< ‘ B ## *<K?;# =>‘ @"=?E8 A < =# ?;‘
?=> @# ?=4 A = # B < ?;‘ #B?! ‘ C= ‚‘ B ‘ ?<7
< = ‘ ?!‘ B ‘ ?;‘#B ‚‘ D =A‘ K K !#

*%‘ ‘ 8 3‘ ; ?8 ‘ #B # #B ‘ < # =A‘ ?!‘ #B ‘ & # # 9
E ## =?# ##?E‘ ?!‘ K‘ ‘ +C" ‘ B ‘ " K =A‘ #B ‘ A? :=L
< =# ?!‘ #B ‘ @ #8 ‘ #B ‚‘ CK?=‘ K;?< ! ‘ D 8 ‘ ?;‘
B? # A ‘ !?;‘ B ‘ K @ D8 ‘ K?;#< =# C=## ‘‘ B ‘A #
‘ ‘ #C;= 4 ?!‘ #B?’ 8 ## ‚‘ E; ## =‘ D>‘ B <‘ #?’ #B ‘ #B C’
/ ; =@ ‘ ?!‘ ; =A

*%‘ ‘8>" E > ‘ ‘ ?8 ‘ #B # #B ‘ *= <= #>‘ ?!! ·L
‘ D>‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ B ## ?=8>‘ &FL
= ‘ #?’ #B ‘ D 8?=A =A‘ #?’ #B ‘ A ; !?= ‘ = ‘ #B ‚‘
! ; =# ‘ #B ‚‘ K;?# # =# ?;‘ K K # ‘ = ‘ #B # #B ‘
K ·!?= ‘ EB?’ ·‘ #?’B ‘ #B ‘ D = ! # !‘ ?!‘ #B ‘ ‘ =9
<= # ‘ B ## D ‘ FK; ! 8>= < ‘ !‘ #B ‘ +C" ‘ 9
>; ‘ # ‘ = ‘ #B # #B ‘ *= <= #>‘ #?’ D ‘ A; =# ‘ >‘ >‘ #B ‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ :L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ ‘ E ## =A‘ #?’ @?<K8>‘ E #B‘ #B ‘ ?<< ! ?=‘ *‘
· @ ‘ D>‘ #B ‘ & ·8 ‘ ?! +?#B =‘ = ‘ %E 4
‘ #?’ <>‘ : <? ## !:?<‘ #B ‘ #8 ‘ ?! & =DC:AB‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ =A ·L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ . @ ‘ ‘ 8 ## ‚‘ =?# 8?=A‘ A? ‘ !·?<‘ #B ‘ #B =‘
/ ; =@ ‘ ?!‘ · =A ‘ !>; A‘ #B # *‘ E?C8 ‘ &?
#B ‘ #8 4 EB @B‘ *‘ K;?< ‘ #?’ ? 4 DC# FK @#
@ ;# =‘ ; !?= D8 ‘ #B =A ‘ #?’B ‘ ! ; # A; =# ‘ #?’ <>9
K?C= ‘ !# ;·8 =A‘ !?;‘ <>‘ K @ D8 ‘ K?·#< =#
?=#=?E‘ =‘ #B ‘ A ; !?= 4 EB?’ =@8 = ‘ #?’ (# > ‘ =‘ # %?’
=# ‘ =‘ #B ‘ B?C! ‘ = ‘ ·‘ #B ‘ @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7
8C# ?= ‘ ?!‘ #B ‘ < # =A4 ‘ <K8?>< =# ‘ = ‘ !?;‘ <>‘ 8!
) ?; ?=

2 * ‘ ?8 ‘ ?!‘ #B ‘ & # # ‘ D =A‘ A= ‘ D>‘
#B ‘ O?·‘ /·‘ =# E · ‘ + 8> · ‘ #?’ #B ‘ *"
#E?’ & ;8 ‘ #?’ D ‘ *=# < # ‘ #?’ #B ‘ +C" ‘ ?!‘) ?; ?=‘
= ‘ 8 ‘ *= <= #>‘ !?·‘ <>‘ 8! ‘ = ‘ <>‘ !·‘ D?#B‘
= ‘ E ‘ :: = ‘ E ‘ A =‘ #?’ #B < 4 #?’ ?!!! ‘ B <‘ ! ‘
@?= C@# #?’ @?< ‘ ?C= ‘ #?’ #B ‘ < ‘ !?;#C= ‘ *‘=‘ #>< ‘ ?< BA‘ E #B‘
?·‘ !?<‘ B?C! ‘ = ‘ ·‘ #B ‘ < ‘ !?·‘ ! @ 8 # # =A‘ #B 7
#; #>‘ E #B‘ B <‘ *= @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7

) ?; ?=

% & ‘ # =A‘ ?!‘ #B ‘ & # # ‘ B =A‘ @?= ‘ ; 5 ‚+ 7 ‘ +,
#B ‘ K K ‚‘ A =‘ = ‘ !CD!@;> ‘ D>‘ #B ‘ +C" ‘ ?!
) ?; ?C= ‘ =‘ =!E ‚‘ #?’ #B ‚‘ ?; ‚‘ ? ‘ + @8 ‚‘ *#‘ <+ ‘ & ‘ ‘
‘ =?# #B ‘ < = ‘ ?! #B ‘ < # =A‘ #B # #B ‘ +C" ‘ B ‘ "6 "+5"87,6
?! @ # =A‘ ‘) ? :=?C,‘ ?! #B ‘ #8 ‘ ?;‘ =‘ =>‘ :2:-
?#B ‚‘ *<K8?>< =# ?;‘ B ‘ NC # =A‘ B ‘ ?< = ‘ #
#B ‘ #>< ‘ B ## *<K?;# =>‘ @"=?E8 A < =# ?;‘
?=> @# ?=4 A = # B < ?;‘ #B?! ‘ C= ‚‘ B ‘ ?<7
< = ‘ ?!‘ B ‘ ?;‘#B ‚‘ D =A‘ K K !#

*%‘ ‘ 8 3‘ ; ?8 ‘ #B # #B ‘ < # =A‘ ?!‘ #B ‘ & # # 9
E ## =?# ##?E‘ ?!‘ K‘ ‘ +C" ‘ B ‘ " K =A‘ #B ‘ A? :=L
< =# ?!‘ #B ‘ @ #8 ‘ #B ‚‘ CK?=‘ K;?< ! ‘ D 8 ‘ ?;‘
B? # A ‘ !?;‘ B ‘ K @ D8 ‘ K?;#< =# C=## ‘‘ B ‘A #
‘ ‘ #C;= 4 ?!‘ #B?’ 8 ## ‚‘ E; ## =‘ D>‘ B <‘ #?’ #B ‘ #B C’
/ ; =@ ‘ ?!‘ ; =A

*%‘ ‘8>" E > ‘ ‘ ?8 ‘ #B # #B ‘ *= <= #>‘ ?!! ·L
‘ D>‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ B ## ?=8>‘ &FL
= ‘ #?’ #B ‘ D 8?=A =A‘ #?’ #B ‘ A ; !?= ‘ = ‘ #B ‚‘
! ; =# ‘ #B ‚‘ K;?# # =# ?;‘ K K # ‘ = ‘ #B # #B ‘
K ·!?= ‘ EB?’ ·‘ #?’B ‘ #B ‘ D = ! # !‘ ?!‘ #B ‘ ‘ =9
<= # ‘ B ## D ‘ FK; ! 8>= < ‘ !‘ #B ‘ +C" ‘ 9
>; ‘ # ‘ = ‘ #B # #B ‘ *= <= #>‘ #?’ D ‘ A; =# ‘ >‘ >‘ #B ‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ =A ·L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ . @ ‘ ‘ 8 ## ‚‘ =?# 8?=A‘ A? ‘ !·?<‘ #B ‘ #B =‘
/ ; =@ ‘ ?!‘ · =A ‘ !>; A‘ #B # *‘ E?C8 ‘ &?
#B ‘ #8 4 EB @B‘ *‘ K;?< ‘ #?’ ? 4 DC# FK @#
@ ;# =‘ ; !?= D8 ‘ #B =A ‘ #?’B ‘ ! ; # A; =# ‘ #?’ <>9
K?C= ‘ !# ;·8 =A‘ !?;‘ <>‘ K @ D8 ‘ K?·#< =#
?=#=?E‘ =‘ #B ‘ A ; !?= 4 EB?’ =@8 = ‘ #?’ (# > ‘ =‘ # %?’
=# ‘ =‘ #B ‘ B?C! ‘ = ‘ ·‘ #B ‘ @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7
8C# ?= ‘ ?!‘ #B ‘ < # =A4 ‘ <K8?>< =# ‘ = ‘ !?;‘ <>‘ 8!
) ?; ?=

2 * ‘ ?8 ‘ ?!‘ #B ‘ & # # ‘ D =A‘ A= ‘ D>‘
#B ‘ O?·‘ /·‘ =# E · ‘ + 8> · ‘ #?’ #B ‘ *"
#E?’ & ;8 ‘ #?’ D ‘ *=# < # ‘ #?’ #B ‘ +C" ‘ ?!‘) ?; ?=‘
= ‘ 8 ‘ *= <= #>‘ !?·‘ <>‘ 8! ‘ = ‘ <>‘ !·‘ D?#B‘
= ‘ E ‘ :: = ‘ E ‘ A =‘ #?’ #B < 4 #?’ ?!!! ‘ B <‘ ! ‘
@?= C@# #?’ @?< ‘ ?C= ‘ #?’ #B ‘ < ‘ !?;#C= ‘ *‘=‘ #>< ‘ ?< BA‘ E #B‘
?·‘ !?<‘ B?C! ‘ = ‘ ·‘ #B ‘ < ‘ !?·‘ ! @ 8 # # =A‘ #B 7
#; #>‘ E #B‘ B <‘ *= @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7

) ?; ?=

% & ‘ # =A‘ ?!‘ #B ‘ & # # ‘ B =A‘ @?= ‘ ; 5 ‚+ 7 ‘ +,
#B ‘ K K ‚‘ A =‘ = ‘ !CD!@;> ‘ D>‘ #B ‘ +C" ‘ ?!
) ?; ?C= ‘ =‘ =!E ‚‘ #?’ #B ‚‘ ?; ‚‘ ? ‘ + @8 ‚‘ *#‘ <+ ‘ & ‘ ‘
‘ =?# #B ‘ < = ‘ ?! #B ‘ < # =A‘ #B # #B ‘ +C" ‘ B ‘ "6 "+5"87,6
?! @ # =A‘ ‘) ? :=?C,‘ ?! #B ‘ #8 ‘ ?;‘ =‘ =>‘ :2:-
?#B ‚‘ *<K8?>< =# ?;‘ B ‘ NC # =A‘ B ‘ ?< = ‘ #
#B ‘ #>< ‘ B ## *<K?;# =>‘ @"=?E8 A < =# ?;‘
?=> @# ?=4 A = # B < ?;‘ #B?! ‘ C= ‚‘ B ‘ ?<7
< = ‘ ?!‘ B ‘ ?;‘#B ‚‘ D =A‘ K K !#

*%‘ ‘ 8 3‘ ; ?8 ‘ #B # #B ‘ < # =A‘ ?!‘ #B ‘ & # # 9
E ## =?# ##?E‘ ?!‘ K‘ ‘ +C" ‘ B ‘ " K =A‘ #B ‘ A? :=L
< =# ?!‘ #B ‘ @ #8 ‘ #B ‚‘ CK?=‘ K;?< ! ‘ D 8 ‘ ?;‘
B? # A ‘ !?;‘ B ‘ K @ D8 ‘ K?;#< =# C=## ‘‘ B ‘A #
‘ ‘ #C;= 4 ?!‘ #B?’ 8 ## ‚‘ E; ## =‘ D>‘ B <‘ #?’ #B ‘ #B C’
/ ; =@ ‘ ?!‘ ; =A

*%‘ ‘8>" E > ‘ ‘ ?8 ‘ #B # #B ‘ *= <= #>‘ ?!! ·L
‘ D>‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ B ## ?=8>‘ &FL
= ‘ #?’ #B ‘ D 8?=A =A‘ #?’ #B ‘ A ; !?= ‘ = ‘ #B ‚‘
! ; =# ‘ #B ‚‘ K;?# # =# ?;‘ K K # ‘ = ‘ #B # #B ‘
K ·!?= ‘ EB?’ ·‘ #?’B ‘ #B ‘ D = ! # !‘ ?!‘ #B ‘ ‘ =9
<= # ‘ B ## D ‘ FK; ! 8>= < ‘ !‘ #B ‘ +C" ‘ 9
>; ‘ # ‘ = ‘ #B # #B ‘ *= <= #>‘ #?’ D ‘ A; =# ‘ >‘ >‘ #B ‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ =A ·L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ . @ ‘ ‘ 8 ## ‚‘ =?# 8?=A‘ A? ‘ !·?<‘ #B ‘ #B =‘
/ ; =@ ‘ ?!‘ · =A ‘ !>; A‘ #B # *‘ E?C8 ‘ &?
#B ‘ #8 4 EB @B‘ *‘ K;?< ‘ #?’ ? 4 DC# FK @#
@ ;# =‘ ; !?= D8 ‘ #B =A ‘ #?’B ‘ ! ; # A; =# ‘ #?’ <>9
K?C= ‘ !# ;·8 =A‘ !?;‘ <>‘ K @ D8 ‘ K?·#< =#
?=#=?E‘ =‘ #B ‘ A ; !?= 4 EB?’ =@8 = ‘ #?’ (# > ‘ =‘ # %?’
=# ‘ =‘ #B ‘ B?C! ‘ = ‘ ·‘ #B ‘ @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7
8C# ?= ‘ ?!‘ #B ‘ < # =A4 ‘ <K8?>< =# ‘ = ‘ !?;‘ <>‘ 8!
) ?; ?=

% & ‘ # =A‘ ?!‘ #B ‘ & # # ‘ B =A‘ @?= ‘ ; 5 ‚+ 7 ‘ +,
#B ‘ K K ‚‘ A =‘ = ‘ !CD!@;> ‘ D>‘ #B ‘ +C" ‘ ?!
) ?; ?C= ‘ =‘ =!E ‚‘ #?’ #B ‚‘ ?; ‚‘ ? ‘ + @8 ‚‘ *#‘ <+ ‘ & ‘ ‘
‘ =?# #B ‘ < = ‘ ?! #B ‘ < # =A‘ #B # #B ‘ +C" ‘ B ‘ "6 "+5"87,6
?! @ # =A‘ ‘) ? :=?C,‘ ?! #B ‘ #8 ‘ ?;‘ =‘ =>‘ :2:-
?#B ‚‘ *<K8?>< =# ?;‘ B ‘ NC # =A‘ B ‘ ?< = ‘ #
#B ‘ #>< ‘ B ## *<K?;# =>‘ @"=?E8 A < =# ?;‘
?=> @# ?=4 A = # B < ?;‘ #B?! ‘ C= ‚‘ B ‘ ?<7
< = ‘ ?!‘ B ‘ ?;‘#B ‚‘ D =A‘ K K !#

*%‘ ‘ 8 3‘ ; ?8 ‘ #B # #B ‘ < # =A‘ ?!‘ #B ‘ & # # 9
E ## =?# ##?E‘ ?!‘ K‘ ‘ +C" ‘ B ‘ " K =A‘ #B ‘ A? :=L
< =# ?!‘ #B ‘ @ #8 ‘ #B ‚‘ CK?=‘ K;?< ! ‘ D 8 ‘ ?;‘
B? # A ‘ !?;‘ B ‘ K @ D8 ‘ K?;#< =# C=## ‘‘ B ‘A #
‘ ‘ #C;= 4 ?!‘ #B?’ 8 ## ‚‘ E; ## =‘ D>‘ B <‘ #?’ #B ‘ #B C’
/ ; =@ ‘ ?!‘ ; =A

*%‘ ‘8>" E > ‘ ‘ ?8 ‘ #B # #B ‘ *= <= #>‘ ?!! ·L
‘ D>‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ B ## ?=8>‘ &FL
= ‘ #?’ #B ‘ D 8?=A =A‘ #?’ #B ‘ A ; !?= ‘ = ‘ #B ‚‘
! ; =# ‘ #B ‚‘ K;?# # =# ?;‘ K K # ‘ = ‘ #B # #B ‘
K ·!?= ‘ EB?’ ·‘ #?’B ‘ #B ‘ D = ! # !‘ ?!‘ #B ‘ ‘ =9
<= # ‘ B ## D ‘ FK; ! 8>= < ‘ !‘ #B ‘ +C" ‘ 9
>; ‘ # ‘ = ‘ #B # #B ‘ *= <= #>‘ #?’ D ‘ A; =# ‘ >‘ >‘ #B ‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ =A ·L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ . @ ‘ ‘ 8 ## ‚‘ =?# 8?=A‘ A? ‘ !·?<‘ #B ‘ #B =‘
/ ; =@ ‘ ?!‘ · =A ‘ !>; A‘ #B # *‘ E?C8 ‘ &?
#B ‘ #8 4 EB @B‘ *‘ K;?< ‘ #?’ ? 4 DC# FK @#
@ ;# =‘ ; !?= D8 ‘ #B =A ‘ #?’B ‘ ! ; # A; =# ‘ #?’ <>9
K?C= ‘ !# ;·8 =A‘ !?;‘ <>‘ K @ D8 ‘ K?·#< =#
?=#=?E‘ =‘ #B ‘ A ; !?= 4 EB?’ =@8 = ‘ #?’ (# > ‘ =‘ # %?’
=# ‘ =‘ #B ‘ B?C! ‘ = ‘ ·‘ #B ‘ @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7
8C# ?= ‘ ?!‘ #B ‘ < # =A4 ‘ <K8?>< =# ‘ = ‘ !?;‘ <>‘ 8!
) ?; ?=

2 * ‘ ?8 ‘ ?!‘ #B ‘ & # # ‘ D =A‘ A= ‘ D>‘
#B ‘ O?·‘ /·‘ =# E · ‘ + 8> · ‘ #?’ #B ‘ *"
#E?’ & ;8 ‘ #?’ D ‘ *=# < # ‘ #?’ #B ‘ +C" ‘ ?!‘) ?; ?=‘
= ‘ 8 ‘ *= <= #>‘ !?·‘ <>‘ 8! ‘ = ‘ <>‘ !·‘ D?#B‘
= ‘ E ‘ :: = ‘ E ‘ A =‘ #?’ #B < 4 #?’ ?!!! ‘ B <‘ ! ‘
@?= C@# #?’ @?< ‘ ?C= ‘ #?’ #B ‘ < ‘ !?;#C= ‘ *‘=‘ #>< ‘ ?< BA‘ E #B‘
?·‘ !?<‘ B?C! ‘ = ‘ ·‘ #B ‘ < ‘ !?·‘ ! @ 8 # # =A‘ #B 7
#; #>‘ E #B‘ B <‘ *= @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7

) ?; ?=

% & ‘ # =A‘ ?!‘ #B ‘ & # # ‘ B =A‘ @?= ‘ ; 5 ‚+ 7 ‘ +,
#B ‘ K K ‚‘ A =‘ = ‘ !CD!@;> ‘ D>‘ #B ‘ +C" ‘ ?!
) ?; ?C= ‘ =‘ =!E ‚‘ #?’ #B ‚‘ ?; ‚‘ ? ‘ + @8 ‚‘ *#‘ <+ ‘ & ‘ ‘
‘ =?# #B ‘ < = ‘ ?! #B ‘ < # =A‘ #B # #B ‘ +C" ‘ B ‘ "6 "+5"87,6
?! @ # =A‘ ‘) ? :=?C,‘ ?! #B ‘ #8 ‘ ?;‘ =‘ =>‘ :2:-
?#B ‚‘ *<K8?>< =# ?;‘ B ‘ NC # =A‘ B ‘ ?< = ‘ #
#B ‘ #>< ‘ B ## *<K?;# =>‘ @"=?E8 A < =# ?;‘
?=> @# ?=4 A = # B < ?;‘ #B?! ‘ C= ‚‘ B ‘ ?<7
< = ‘ ?!‘ B ‘ ?;‘#B ‚‘ D =A‘ K K !#

*%‘ ‘ 8 3‘ ; ?8 ‘ #B # #B ‘ < # =A‘ ?!‘ #B ‘ & # # 9
E ## =?# ##?E‘ ?!‘ K‘ ‘ +C" ‘ B ‘ " K =A‘ #B ‘ A? :=L
< =# ?!‘ #B ‘ @ #8 ‘ #B ‚‘ CK?=‘ K;?< ! ‘ D 8 ‘ ?;‘
B? # A ‘ !?;‘ B ‘ K @ D8 ‘ K?;#< =# C=## ‘‘ B ‘A #
‘ ‘ #C;= 4 ?!‘ #B?’ 8 ## ‚‘ E; ## =‘ D>‘ B <‘ #?’ #B ‘ #B C’
/ ; =@ ‘ ?!‘ ; =A

*%‘ ‘8>" E > ‘ ‘ ?8 ‘ #B # #B ‘ *= <= #>‘ ?!! ·L
‘ D>‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ B ## ?=8>‘ &FL
= ‘ #?’ #B ‘ D 8?=A =A‘ #?’ #B ‘ A ; !?= ‘ = ‘ #B ‚‘
! ; =# ‘ #B ‚‘ K;?# # =# ?;‘ K K # ‘ = ‘ #B # #B ‘
K ·!?= ‘ EB?’ ·‘ #?’B ‘ #B ‘ D = ! # !‘ ?!‘ #B ‘ ‘ =9
<= # ‘ B ## D ‘ FK; ! 8>= < ‘ !‘ #B ‘ +C" ‘ 9
>; ‘ # ‘ = ‘ #B # #B ‘ *= <= #>‘ #?’ D ‘ A; =# ‘ >‘ >‘ #B ‘
#B?’ *‘ @ ==?# ? ?’ ‘ K K # #B # D =A‘ =A ·L
?C 4 = ‘ *‘ =?#@?= @#4 !?;‘ *‘ B?K ‘D =A‘ =‘ *<K8?>9
< =# E #B?C# # " =A‘ #B ‘ % # @?=#; ‚‘ #?’ = ‘ @#
?! / ·8 < =# ‘ =?’ @?= @# ?=‘ ?! / ?K ‘
*‘ . @ ‘ ‘ 8 ## ‚‘ =?# 8?=A‘ A? ‘ !·?<‘ #B ‘ #B =‘
/ ; =@ ‘ ?!‘ · =A ‘ !>; A‘ #B # *‘ E?C8 ‘ &?
#B ‘ #8 4 EB @B‘ *‘ K;?< ‘ #?’ ? 4 DC# FK @#
@ ;# =‘ ; !?= D8 ‘ #B =A ‘ #?’B ‘ ! ; # A; =# ‘ #?’ <>9
K?C= ‘ !# ;·8 =A‘ !?;‘ <>‘ K @ D8 ‘ K?·#< =#
?=#=?E‘ =‘ #B ‘ A ; !?= 4 EB?’ =@8 = ‘ #?’ (# > ‘ =‘ # %?’
=# ‘ =‘ #B ‘ B?C! ‘ = ‘ ·‘ #B ‘ @ ‘ B ‘ @NC !@ ‘ #?’ #B ‘ !?7
8C# ?= ‘ ?!‘ #B ‘ < # =A4 ‘ <K8?>< =# ‘ = ‘ !?;‘ <>‘ 8!
) ?; ?=

& + * ‘) ‘ ‘ ‘

%8 ;#
= =##B
+C" '?!'
)?; ?=.

% &' & ;8 '?!' 0?C#B =' = '%E 8 'B =A'
; K?;# ' #B # #B ' +C" ' ?!')?; ?C=' ; !C ' #?'
?D >' #B '?; ;' =# B <4 = '#? NC !@' #?' #B '
; ?8C# ?= '?!' ! '& # # 4 CK?=' #B 'K K ;' A =' ='
D>' B <' #B >' A; =# '#B '?; ;' !?8?E =A

&+* ') '8 ⅈP' ;@B' G

% &' # =A' ?!' #B ' & # # ' B =A' B ; ' = ' ?#<; E J
@?= ; ' #B ' K?;# ?!' #B ' @?<< ## ' !?;' @?=9
#; ;# '&8 @# ?= ' =' ; 8 # ?= '#?' #B '@?<< ! ?=' D>'#B ' B ; ' ?!' ;E @"' =' ! ;?; '?!' #B 'O ; ;
A; =# 'D>' #B ' & * ' +,' ;E @"' #?' ' ;@BB 8 '
?@"DC< ' ?!' 0 =A#?C= ' B ; =A' #B # #B ' @?<9 !C!#(= '
< ## ' KK? =# '#?' !@C! ' #B ' @?=#; ;# ' 8 @L
?= ' B =A' @ 88 ' #B 'K ;# 4 = ' @?= ; '
#B 'K # # ?= 'A =' =' !?;' #B ' 0 ; '?!' 0 =A#?C= '
E #B' #B ' 0 ; '?!' ?@"DC;= ' @"=?E8 A < =#
#B # B 'K ! '!;?<' =>'@?<K # # ?=' A # #B '0 ; '
?!' 0 =A#?C=4 %B >'C= = <?C 8>' !C # = 'K '8 ; '
+,' 0 =A#?= '@?<< 8 ?=' #?' ## =' #B ' < # =A'?!'
& # # ' =' ?! ;;' '@?=@ ;= ' K ' 0 ; '?!' 0 =A9
#?= ' ?=8>' %B ' & # # ' B ' KK;? =' = ' +? '
KK;? '#B '8 ' K?;#4 = ' =# ;K?= '#B ;' C#B?9
; # '#B ;#?

?<< Q ?=' ⅈ
#?' ?[(< ' '
!?;#B DC;A8' '
?!' / ;#B'K; ' *
! ;; '#?k7 '
=' Q ?; '?!'
(K / #; @"'
%B; K ' ?

% &' # =A' ?!' #B ' & # # ' B =A' B ; ' = '
?= ; '#B ' K?;# ?!' #B ' @ < ## ' !?;' @?=#; L
;# '&8 @# ?= 4 D ; =A' #B # #B >' B =A' @ 88 '
= 'B ; ' (ⅈ / #; @"' %B; K8 = ' = ' ?D ;# (< #B'
= =# #B ;' @?=#; ;# ' 8 @# ?= ' #?' B ' @?<< !9
?= ;' !?;' #B 'DC;AB' ?!' / ;#B' *#' '#B ;' C= = <?C '
?K = ?=' %B # ?D ;# (< #B' D ' K; ! ;; ' #?' (ⅈ
/ #; @"' %B; K8 = ' ' D =A' 8 A 88>' @B? =' D>' #B '
K8C; 8 #>' ?!' #B ' DC;A ! ' %B ' & # # ' B ' KL
K;? =' = ' +? ' KK;? '#B ' ' K?;# ?!' #B '
@?<< ## ' = ' =# ;K?= '#B ;' C#B?; # '#B ;#?

$ (' ' '#B '& # # '?!' #B '1 =A ?< '
B 'D>' #B ' ; C8 'KC;! =# ' = ' #;C<K # ' ='
#B ' ?; = ;>' !?;< ' ; NCC9 ') ?;A ' +C" ' ?!'
)?; ?= ' = ' ?#B ;' / K # ' E #B =' #B ' @ #8 ' ?!'
& =DC;AB' #?' <? '?C# ?!' #B ' '@ #8 'EB @B'
B ' = ' #B >' +? ' =?E' K?! ! ' A = # 0 E' %B >'
B ' #B ;!?;' !?C= ' # = ! ;4 8 " ' #B >' B '
+ ; @# ' #B ' K; ! =# ' #?' #B ' O>?=' = ' B '
D; #B; =' B ; 8 ' = 'KC; =# 'Q@' %?' K ! '#?' #B '
< ;@ # @;?! '?!' & =DC;AB4 = '#B ;' =' #B '?; = ;>'
E >' !# ;' !?C= '?!'#;C<K # '#?' + @B ;A ' = 'K;?9
B D # ' 88' #B ' CD @# ' ?!' #B ' 1 =A ?< ' #?' @?=L
;! 'E #B' DD ## '?;' ! # #B '! ' +C" ' ?;' =>'
; < = =A' E #B' B <' E #B =' #B ' ' @ #8 4 # =>'
#>< ' !# ;' #B 'K;?@8 < # ?=' B ; ?!4 C= ;' #B 'K ='
?!' #; ?= ' = ' ; = '#B 'B ; 8 ' = 'KC;L
! =# '#?' < " 'KCD8 @ # ?=' B ; ?!' @@?; =A8>' !?;'
'EB @B' #B 'K; ! =# ' B 88 D '#B ;' E ;; =

% &' # =A' ?!' #B ' & # # ' +? 'A '?; ;' = '
E ;; = '#?' #B ' < A #; # ' ?!' & =DC;AB' #?' (##
AC ; '#?' #B ' =C '8 =A' #?' #B '@ #8 ' ?!' & ⅈ4
= 'K? # < 'A # ' #B ;?!4 #B # =?' K ;!?= ' < >'
A? ' =' #?' ! '! '@ #8

% &' < # =A' ?C;= ' C=# 88' # =' '@8?@"'
#?' <?;;?E

R 2 ;; = '
#?' #B ' g
A #; # '?!'
& ⅈ!?;' ! #g
# =A' AC ; '
#?' #B '
C '?!'
' #8 -

% &' ! ;' B =A' A= ! '#B # ?= 'B ⅈ ; < ' 0 # '
E ' # #B ' ??;' = 'B' ' '8 ## ;' !;?<' 1 =A' J < ' !;?<' 1 =A
#?' K; 8 =# #?' #B ' < # =A' ' E '@ 88 ' =' = ' J < 'K; g
+ 'K; ! =# #B '8 ## ;' = ' # D =A' <? ' D>' ! =# '#?
!?< ' < <D ; 4 #B # ` '8 ## ;' !;?<' #B ' 1 =A' < AB#
D '; '%B 'O?; '/; =# + ' C< '#B '?@@ g
! ?= '?!' #B ' < # =A4 D =A' #B ' ; ! ' #B # E '
< 'D>' #B ' =?D8 < =' = ') =#8 < =' ?!' #B '
1 =A ?< ' D =A' # 0?= ?=' !?;' #B ' #>< ' #?' #B '
#B =' /; =@ '?!' ; =A ' + !>; =A' B ' B AB= ' #?'
" ' CK?=' B <' K ' < = #; # ?=' ?!' #B ')? ;=L
< =# *=; K # ?!' #B ' + ?; ; '#B # E ; 'B ; ' #
#B ' #>< ' = '#?' @ 88 ' < # =A' ?!' #B ' & # # 4
= ' + ' K; ! =# #B # #B ;' E ' 8!?' 'O ## ;'
!;?<' B ' B AB= ' D>' EB? ' C#B?; # ' #B >' E ;'
< ##4 #?' #B ' < # =A' ;?CAB# B #B ;' D>' #B ' & ;8 '
?!' 0 = 4 EB @B' B ' A; @ ' + ; ' < AB# 0>" g
E > ' D ' ; ' = ' # D =A' ;AC 4 #B # # E '
! ## ! ; # #?' ; 'B 'K; =@ 'O ## ;' =' ; A ; '#B >'
< ## D>' 8 ' C#B?; # ' = ' 88 4 = '#B # =>' #B =A'
#B ; =' ?=# = '@?C8 '=?# + 8 ?8 '#B ' <? ## =A4
'B ' 1 =A ' 8 ## ;4 < AB# ?' *# E ' ; ?8 '
! ; # #?' ; 'B ' /; = '8 ## ;4 EB ;?!' #B ' # =?;'
!?'?E

Edinburgh the Twenty ffourth day of March Jajvc eighty nyne yeirs

The quhilk day ane Letter from King James the Seventh presented to the meeting of Estaitis Thay Letter
proif declaird and enact that Nothwithstanding of any thing that may be contained in that Letter for dissolv
ffrie or impeding the ffreedome yit that they are a free and lawfull meeting of the Estaitis and will continu
undissolvable Quhill they settle and secure the publict Peace with the Government Lawes and Liberties of the Kingd

Hamilton
Athole
Douglas
Argyll
Errol
Mar:
Jo: Glasg
Jo: Dunbl
Will. Moray
Roffen:
Rothes
Southerland
Strathmore
Lothian:
Marchmont
Rothes
Ro: Dunn
Strch: Dodor
Marr
Lindsay
Forfar
Annandale
Lauderdale
Forrester
Sanquhar
Louth
Tarras
Bellenden
Belhaven
Dundonald
Lindores
Panmure
Kinnoull
Nairne
Strathmore
Johnstoun
Aberbrothock
Jarmichaell
Tarbat
Carnwath
Ballo
Johnstoun
Dundie
Belhaven
Cathcart
Rothesfurth

Edinburgh the sixteen day of March 1689

Forasmuch as there is a letter from King James the seventh presented to the meeting of Est... they before opening y^e^ Letter and enact that notwithstanding of anything that ... be contained in that Letter for dissolving them or impeding their procedure yet they ... are a free and lawfull meeting of the Estates and will continue undissolved ... they settle and secure the protestant Religion the government laws and liberties ... the Kingdome

Jo: Maxwell W Aytstruther Jo Lauderdale

Ro: Dnn Dr. Cokburn M. Hamilton R. l. S Mclaire

Jo: Dalrymple Barrach Moray Ro: Cokburne

Jo: Hamilton Dan: Boyle Jo: Hamilton

William Colchoune Jo: Murray Jo: Hamilton

Charles Arskine James Foulis Jo: Erskine

Patr: Hume Pursuivant James Montgomrie Cal: Hay

Dr: Athenbocks Bel: Wallace Williams Stott

N. Murray Lo: Dalrymple Thomas Drummond

Jo: Gordon Sasr to K. Office

Wallace of Lamington

Jo: Campbell Carruth

Jo: Johnstoun Ludovick Grant

W Cuninghame

Tho: Lucas Forbes

Jo: Hamilton

Ja: Bruce

Wm Dalrymple

Jo: Hamilton

Ja: Ramsay Brodie

Mor. Aberbrothock

March 26: 1689

for as much as ther is a letter from King James the 8 lords presented to the meeting of the Estates
they befor opening ther first sederunt do declare that nether adding of any thing yt may be conceived
in yt letter for offending ther meeting of ther procedure but yt they are a free lawfull
meeting of the Estates & shall continue undissolved until they settle & secure the protestant religion
goverment lawes & liberty's of the kingdom

[signatures]

$?;
%B ' & # # ' ?!' #B ' 1 =A ?< ' ?!' (@?#8 = '
#' #B ;' ## 8 A' #' & =DC;AB

>' 0?; 'Q) =#8 < =
2 &' ; ' ;>' = D8 ' ?!' #B ' 1 = = ' = ' ?=9'
@ ;= ' #B #' < =>' ?!' >?C;' # ?=' B #B' =@ '
#?E ; ' ' 4' = ' C;'C= ;# " =A' !?;' #B 'K; ;L
?=' ?!' 8 A ?=' = ' 0 D ;#>4' EB @B' E ; ' ='
! 8@B' << = =#' =A ;4' = #B ;'@ =' 2 ' ='#B '8 #'
?CD#' ?!' >?C;'@?=! =@ ' ='C 4' !# ;'B =A' ='
B?E' ! ;;' ? ' < =>' ?!' >?C;' ?D 8 #>' = ') =#; '
B '?E= '?C;' + 8; # ?= ' ?C=# = =@ =A' = '
X ?=@C;; =A' E #B' ' ' =' C;' = ?C; ' = ' 9'
!>; =A' #B #' 2 ' B?C8 '# " 'CK?=' ' '#B ' < L
= #; # ?=' ?!' !! ;' 88' = ' 8 # ;>4' = '#?'
@ 88' ' < # =A' ?!' #B ' & # # ' !?;' ! @C; =A' #B '
/ ;?# # =#' 8 A ?=' #B ' =@ =#' 0 E ' = ' 0 D ;L
' ?!' #B #' 1 =A ?< ' EB @B' @@?; =A8>' 2 '
B ' ?=

? E ' #'8> '?='>?C'#?' =# ;'CK?=' C@B' ?=!C8# 9'
?=' ' ; '<? #'K;?D D8 '#?' #8 '>?C' ?=' !C; ' = '
0 # =A' !?C= # ?=' EB @B' 2 'B?K '>?C' E 88' #'
?C#' E #B' 88' @ < = =#' K 4' E #B' ; A ; '#?'
#B ' /CD8 @"' A?? 4' = '#?'#B 'A = ; 86' *=# ; #' = '
*=@8 = # ?=' ?!' #B ' * ?K8 ' %B #' !# ;' !? ' <C@B'
'#;?CD8 ' = ' A; #'!C!! ; =A4'#B >' < >'8 'B KK>8>'
= ' ='K ^Y' = '#B #'>?C' < >'8 >' !> ' ##' = 9'
<?! # ' = ' ! @# ?=' #B #' < >' *<K ' ? ' A?? '
'E?;"

2 &' E ; ')8 '#?' ! = '#B #' ?' < =>'?!'#B ' ?D 9'
8 # 'Q) =#; ' EB =' B ; ' #' 0?= ?=4' E ; ' ?'
<C@B' =@8 = ' #?' = ' C= ?=' ?!' D?#B' 1 =A ?< 'Q
#B #'#B >' '8??"' CK?=' #' '?= '?!'#B 'D #' < ='
!?;' K?? C; =A' #B ' B KK = ' ?!' #B ! ' # ?= ' Q
#8 =A' ?!' ' 8 # =A' K @ ' <?=A #' #B <' EB @B'
2?8 'D ' =# A ?C '#?' D?#B ' %B >'8 =A' ='#B '
< ' * 8 = ' B =A' #B ' < '"=AE A 4' '#B '
< ' @?<<?=' =# ; #' ?!' 8 A ?=' = ' 0 D ;#>4'
& K @ 88>' #' #B ' C=@#C; ' EB =' #B ' &= < ' ?!'
D?#B' ; ' ? ' ; #8 ! ' &= ?C; =A' #?' < " ' = '
=@; ! ' 8?C ' = ' + ! ?= ' EB ' #B >' E 88'
D ' ; >' #?' <K;? '#?'#B ;'?C= ' =# A ' = '
#B ' < = ' ?!' ; # =4' 2 'D =A' ?!'#B ' < '?K L
= ?=' ' #?' #B 'C! !C8= ! '?!'#B ' ' = ?=4' = 'B L
=A' =?#B =A' !? ' <= B' D !?; ' ?C;' &> 4' ' #B '
)8?;>' ?!') ? ' #B ' & # D8 !# =A' ?!' #B ' ; !?;< '
8 A ?=' = ' #B ' K @ 'Q B KK>= ! ' ?!' #B ! ' '
?= 4' ; ' ?8 '#?' C! ' C;'C#<? #' = ?C; '
=' =@ =A' ;>'#B =A' EB @B' < >' ?= C@ '#?'
#B ' !! @#C # =A'#B ' < ' (?' E 'B ' >?C' B ;#>8>'
! ; E 88' !;?<' ?C;' ?C;# #' <K#?= '#B 'VH' >'
?!' ;@B' U9
@' CD7 2 *0 0* '

% & &$%& ' *#' D =A' C;A ' #B #' #B ' 1 =A '
8 ## ;' < AB#' D ' ; ' #' E ' K;?K? ' #B #' D !?;'
?K = =A' ?!'#B '8 ## ;4' #' < AB#' D ' + @8 ; 'D>'#B '
< # =A' #B #' =?#E #B!# = =A' ?!' =>' #B =A' @?=L
= ' =' #B ' 8 ## ;' #B >' B?C8 ' @?=# =?E' C= !9'
?8 'C=# ' '#B >'! @C; '#B ' ; 8 A ?= ' #B ')? ;=L
< =#' 8 E ' = '8 D ;# '?!'#B 4' 1 =A ?< ' = ' #'
D =A' KC#'#?'#B ' ?# '#B ' @#' E 'K #4' EB ;?!'#B '
# =?;' !? ' ?E 4' EB @B' E ' ! A= 'D>'#B ' < <D ; '
?!'#B ' < # =A' K; ! =#' &F@ K#' ;>' ! E7

%' @8 ; =A' #B ' #?' D ' ' !; 'Q 8 E!C88'
< # =A' ?!'#B ' &!# #

$ (' ' #B ;' ' ' 8 ## ;' !;?<' 1 =A'
J < ' #B ' (=#B' K; ! =# ' #?' #B ' < # =A' ?!'
#B ' & # # 4' #B >' D !?;' ?K = =A' #B ;?!' + @8 ;' = '
= @#4' #B #'=?#E #B # = =A' ?!' =>' #B =A' #B #' < >'
D '@?=# = ' ='#B #' 8 ## ;' !?;' + ! ?8 =A' #B <' ?;'
*<K =A' #B ;' K;?@ C; ' > #' #B #' #B >' ; ' '!; '
= '8 E!C88' < # =A' ?!' #B ' & # # ' = ' E 88'@?=L
=C ' C= ! ?8 ' C=# 8' #B >' #8 ' = ' ! @C; '#B '
/ ;?# # =#' 8 A ?= ' #B ')? ;=< =#' 8 E ' = '
8 D ;# '?!'#B ' 1 =A ?< 4

%B ' 8 ;A>'Q ?D 8 #>' CD @;> '#BC

J?7)8 A?E4' J?7 C=" 8 =4' 2 887 ?; =7
J ' ?! =5' ?D ;#' C<D8 = =4' ;@B7 (? ?; =7
= 7 ;@ =5' < 8#?=4' +?CA8 4' #B?'4' ; E9'
!C; 4' 0?#B =4' ?;#?=4' 0 =8 #BA?E4' &A8<#?C=4'
$?;! ;4' 0? ##4' 88@= =4' 0 = ?; 4' C2 ;"4'
8 =#>; 4' ;A>884'd&;;?8 4' ;4J' (?C#B ;8 = 4')8 =9'
;= 4' ;8>4' 0 =4' == = 8 4'%E 8 4' / =9'
<C; 4'% ;; 4+C= ?= 8 4' 8@ ;; 4' (#?;<?=#4' 1 =9'
KC; 4' ;DC#B= ##' % ;D #' +C= 4' ;< B 884'
; ;?! 4' 8B =4' C#B ;! ; 4' ;A =>4' ?! 4'
%?;KB @B =4' $?;; # ;4' ?'?4'&8KB =A #?=4' +C!!C 4'
C#B =

%B ' ;?= ' CD @; '#BC

J' #8 = 4' ?7 (=@8 ;4' ' ?"DC< 4' = ; E'
A= E4' + ' ;=?##4' 27 ' &88 ?#4' / #' (@?##4' %B?L
< '+;C<<?= ' / #; @"' A 8 ' 2 ' = #;C#B ;4'
2 H' ||+?C '4' / #; @"' ?; >4' +' ;< B 884'
2 ' ' ?!' 0 < =A#?=4' + ' ?>8 4' ' 9'
)C!!?A4' J < '$?CB 4' J < ' ?=#A?< ; 4' 8 ;'
?!'#B #' 8"' + ' &; " = ' +C=' J?' FE 884' ;'
?"DC;= 4' J?7+ <K # ;4' J' ?C #?C= ' 2 88 <'
?8B?E= ' DK8 ' ; " = 4' / #' C< ' /?8E ;#'
+' 7 @B =D; "' ;' C;; >4') ?' /; =A8 4'
')?; ?=4' J?' + 8W '' J 'J?B= #?=' %B?4' + C=L
D ;' (' %' C;= ##4' + '7 ;C@ 4' ' < 8#?C= 4'
J' 8 = 4' 2 88 <' (`#' OC ? @"'); =#4' J '
<! >4' 8 FP ;BC#B= #4' 2 I' C= =AB < 4' '
+C!!' + ' $?;D ' J?5)?; ?=' J ' ? ; ' ' ;? '
J?H <KD 88') ;; @"

.

%B C;A ! CD @;> #BC

J?B= 88) ? (# ;8 =A ?D ;# (< #B J ! 8 #@B ;J?= ;!?' J C;; >J 5 A 8 J? + 8;><K8 E 1 == >J J < (< #BJ J?B= ?;) 8 F (K ## 88 8 F C= =A B < J C J?#&E ;# ?D ;# 8 'J C#BD ;#J 1 == =J (<?88 #J 2 88# ?8#; =J B ;8 8" #) ?#(< #B%= < 8#?= J? ?! 2 88 / #; @"= (# =J 4(# E ;#J ?' C ;J E 2 88 @ / #C; ?@B J ;= A J '#(< #B J (@?## ?[8 8 = 2 H ?!) ?; ?= J?J ?! CAB ;?C= J?B= = ;!?= 2 (# E ;#J 2 88 < 8#?C= J %B?C %C '?@BJ + (K =! J 2 j AA = J? ? !E 'J) ?; ?=J 2 88 ; " = 2 88[?@B; =J / #; @"= 2 88 @ 8 F) ?; ?=

% & &$%& #B 8 ## ;! !;?< 1 =A J < E ; 7

4 %& = * + '* -+*. .' & '>++('+,')+ 7 + ' / ' '<* *7 .' .' '+,' & ',+ +? 0 +*

@ 1 ' 5
A' =+*. ' .' 3 6 ' : & * ' & 7 / ' ,+*6 .' & ' + ' & '< * ' .' <* 7 ' +,' & * ' .' >+**+ ' +,' & ' 2 * 'C 0.+6 ' * +6 ' +0 & * '+ *3++.' + ' +,' 1. /+**+ 0&' ,+6 ' 6 ' ' & ' , ' *-&'> ' & 'D, *< .' &+* ' +,' & ' * - '+,' 2* 0 ' : ' & (', ' +' ' + ' (+' %& ' ' ' & 7 ' ' 6 ' * .' <+ ' & ', &, E , ' .' ,, - + ' +,' + '+ * ' +< ' +6 -&' & ' '+ *0* ,' 6 ,,+* '& * +,+* ' ' & .' * -+ *, ' +' + 6' , - ' .' & '? &'0++.', -- , ' +' + * , * ' +' + ' 0 ' '* F * '+,' + ' +', <<+* '2 * 5+ ' * , '1G< - 0',*+6' + '?& ' / H -+6 ' + D' .', &, D', /8 - '0 *+ ' .'&+ '6 '%& ' + '? ' & * , ,, * ', 7 ' +' / ' - 8+D .' +*,* 0& .' +' - + ' 6 / -+6 0' * '& * .',*+ 6 ' .' & ' +' , <+*' & '&+ +* +,' ' I + ' + '? ' -+ 6 ' &' / , ' GH 6< '+,' . + ' 6 ' .' 1 * , ' + * 6 ' / ' ' + ' , / ' +' &' 6 '<*+, ,, + ' + '& 7 6 . ' +' '9 '.+ 0' ?& *+,' + ' ? ' -&+ , ' &' , , ,' < * ' , - ' & */ ' + ' ? ' 7 ' &' . 0 * + ' 6+,' . ' . *0+' %& ' , 6 ' .' . ,' 0* - ' + ' 6+,' /* 0' <+ ' + *, 7 ' ' &' ?+* .' .' &')+ H . 6 + '. ' +' &' 5 / + ' '. ' G' .' + '? ' (? '& 7 &' +<+* ' +', - * ' +' + *, 7 ' .' + * <+, * '& '0* - + '<*+6 , ' '& 7 ,+', '6 . '+,', - * 0' + * 5 0 + ' ? ' *+< * ' D/ * ' .' * 0& '?& -&' ? ' * ' E '5 ,+ 7 .' +' < ,+*6 ' ',++ ' ' ' ' <+, / ' ,+* ' +' 6 ' + ', , ' ' ' * 6 '+,' & '2 * 'C 0.+6 '9 '& ' 6 ' 6 'J * + ' +' . - * ',+* ' K , .' +7 * 0 ' : &+' ? ' +', '+ '2 * < * ' +' 0 7 + ', -&',< . ' .'<+? *, L' ,, , - ' ' & ' +'+ ' / ' + ' +' . , .' , 7 ',*+6' ' ,+** 0 ' 6<' / '< ' + ' ' ')+ . + ' +' , *' 2 * 5 0& ' 0 ,' 2 * 1 6 '?&+' & 7 . <* ,, .' & ', 6 ' / '. ' / -(,' +,' , *< + ' & ' 6+,' 8 ,' ' ? ' ' 6+,' * ' +,' 6< ' : & -&' & ' 6 0& '3+.' 6 ',+* ' 6 '< *6 ' .' ' & '? -(.'<*+,< * A ' & ' .' 6 ,' /* 0')+ , , + ' <+ ' , -&' ?+*(* ' +,'9 F ' : ' , * & * ' + ' (+' & ' ' ? ' < *.+ ' ', -&' ', ' * * ' +' & * . < ' / ,+* & ' ,'. ' +,' & '6+ &' - , 7 ' .' & ' ' ? ' < , '? &' & ' * 0+*

' F

% &' ## =A' ?!' #B ' & # # ' +? ' =?< = # = ' ^?<<# ' KK?>=# #B ' ;NC ' ?!' #B?88 %B ' & ;8 ' ?!' %E 8 = ' !@?C=# ?!' % ;D # %B ' 8 ; ' ?!') ; =# (" 8<?;8 ' = ' = #;C#B ;' (7 J?B=' + 89' #><K8 ' 7 2 88 <' < 8#?= = ') ?;A ' (# ;J 8 = '#?' < # ' ' ?<< ## '#?<?;;?E' # !> ' ' @8?@"' =' #B ' !# ;=??= ' = '#?' ?= ;' EB # '! ## #?'D 'K;?K? '!?;'! @C; =A' ?!' #B ' @

% &' ## ' + ' 8!?' =?< = # ' = ' KK?>=# ' MM2*. * #B ' & ;8 ' ?!' &A8 =A#?C=' = ' #B ' 8?; ' ?! J #B ' 3 ' &'%+? 8 8 ; ' ?!' 8 ;' = ' ?E!#?=' (7 J?B=' 88' = ' (7 B ;8 ' 8" #J #?' ! ' #B ' #?== ' AC ; ' ! ## #B ' = AB# = '#?' <?;;?E

+ & & + ' #B # 'K;?@8 < # ?=' D ' +; E =J = ' MM ' &' ?!! ; '#?' #B ' < # =A' ?=' C= >' !?;' D; =A =A' =' ?!MD> C ' #B ' >A?= ' ;; ; ' ?!' #B ' KCD8 @"' ; = EJ = ' ** * ' + !@B ;A =A' #?' =!E ;' =>' K; @ K# ' C=# 88' #B ' ! < 'D ' ?=

%B ' < # =A' ?C;= ' # 88' <C= >' # # =' '@8?@"

& + * ') ' 7P ;@B' G

$%& ' @ 88 =A' ?!' #B ' ?88 ' 7 J < ' A 8 ' MM ' &')+66 , + ' @?<< ! ?= ;' !?;' #B ' DC;AB' ?!' C88 =J /;?# # ' ,+* C *+, 0 A = #'#B ' ?<< !! ?= 'A; =# '#?' (7 + ' ;=?#' !?;'#B ' B ; '?!' 1 =;? J = ' 88 A '#B #'B ' @?C8 ' =?#' ?# ' C=# 88' #;> 88' E ; ' # " =' ?!' #B ' 88 # ' ?!' #B #' ?<< ! ?=' D>' #B ' ?<< ## ' !?;' 8 @' # ?= J *=' ; A ; ' (7 + ' E ' =C ' ?!' B ' & # # 'D>' = ' FK>; ' C @ # ?= ' C#' ?D ;# 8 88 = ' #B ' C A ;' B =A' + @8 ; '#B #'B ' B ' < ' ? ;' #B ' C @ # ?=' *=' ! ?C; ' ?!' (7 + 'B <! 8! '%B ' < # =A' ?!' #B ' & # # ' ; L < ## '#B 'K;?# #?;'#?' A ' =' B ' K # # ?=' #?' #B ' ?<< ## '?!' &8 @# ?=

+,' 2 *' = ?' ', -&' ' & ', .' + ' ' * / + ' 0 ,' '+*' + * &+* ' +' +' .+ / 0' & ' + '? ' . - * ',+*' ' .' , <<* ,' ?& 7 * 6 '+<+,' + * * ,' .' & ' + ' D', .' ,+6 '+,' + * 6 /*' +' '? &' --+6<' +,' '. 0 - ' .' &' <+, * ' +,' + * ,, * ' & *' : ' > .' + ' E * ', * ? ' 3 7 '+ '>+ *.' ' ;' -& ', *,' +,' *-&' ' .'+,' 2 *' 5 0 ' & ' 44' A *

> 'E ' 8;N')+66 .
1=J 2 5%8

@ %2' & '=+*. ' < * ' .' 6<+* L'%& ')+6 , ' , + *'+,' & * ' .' >+*+ 0&'+,' 2 * 'C 0' .+6 '+,' -+ .' 6 '+*' +' 6 ' '2 * 0++.' + '+,' 1. /* 0&K

@'%& ' *',*+6' & 'C 0' / 0'0 7 ' '/ '+ ' ')* '7<+ ' & ' ' *-&' '? '* . '/ ,+*' & ' 0'+,'1 K

?< < ?=
+ E OH
0 ',+*= H
&0+?<* H
! ;; + & '
& * 0* H
+ &
0?; 0 g
!#?C=

% &' < # =A ?!' #B ' & # # ' B =A B ' = '
?=! ; '%B ' K?;# ?!' #B ' ?<< ## '!?;' 8 @g
?= 'D ; =A #B # =' #B ' @?=#; ;# ' 8 @# ?=
!?;' #B ' DC;AB' ?!' 0 =8 #BA?E' *=' ! ?C; ' ?!' #B '
0?; '0 =A!#?C= ' = ' 2 88 <' AA B *#' '#B '
?K = ?=' ?!' #B ' ?<< ## '#B # 2 ' <' AA = '
?<< ! ?= '?CAB# #?' D 'K; ! ;; '! ;!#' *=' ; A ; '
?!' #B '0?; '0 =A!#?C= (' *=@ K @ #>' #?' ; K; ! =#
' DC;AB' D =A' #B ' 8 # !?= ' ?!' ' / ; = '
(@?= 8>' *=' ; K @# 2 ' <' AA = ' E ' <?; '
8 A 88>' = ' !?;< 88>' 8 @# ' D ' #B ' K8C; 8 # ! ' ?!'
#B ' ?# ' ?!' #B ' DC;A ! ' %B >' B ' KK;? ='
= ' KK;? '#B '! '; K?;# =' D?#B' B '#B ;?!'
= ' =# ;K?= '#B ;' C#B?; # '#B ;#?

/ 0 %* '!?;' D; =A =' #B '
D>A?= ' ;; ; '?!' #B 'KCD8 @"' =C

% &' # =A ?!' #B ' & # # ' ?!' #B ' 1 =A ?< '
!?;' !; > =A' #B '@B ;A ' = ' FK =@ '?!' @C; =A'
#B 'K;?# # =# 8 A ?= ' #B ;' ?C= ' ! #>' = '#B '
KCD8 @"' K @ '?!' #B ' 1 =A ?< ' *=' #B ' C=@#C; '
+? ' ; =' '' K ;!?= '8> D8 ' ='K ;< =# ?!' #B '
CKK8>4 #?' < " 'K >< =# ?!' EB # E ' C ' # < ;g
< '8 # #?' #B ' ?' @#?; ' =' #B '; K @# '*B8; '
= ' DC;AB 4 = ' #B '#> D8 ' ='K >< =# ?!' #B '
=8 = ' &F@>! ' =' #B ' ' B>; ' = ' DC;AB '
= ' *<K?! # ?=' A; =# '#?' #B '#?' = '?!' & =L
DC;AB' K;?@ =A' @ = 8 < '8 # #?' < " 'K >L
< =# ?!' #B ' < '#?' #B ' # @" < =' ='#B ' ! ; ''
*B>; 4 E8 @B' ?' @#?; ' = ' # @" < =4 ; 'B ; D>'
; NC ; 'CK?=' ; @ K# #B ;?!4 #?' K >' ='#B ' < '#?'
J < ' E 8 ' ?!' ! =A8 #?C= 4 = '8 " E > ' ?;g
= ' 88' ;; ; '?!' #B ' ## #?< '!?;; A= ' F@>! '
= ' #B ' ;?C= ' ; =# ' #?' D ' K > ' #?' (/ #; @"'
C;; >' K; ! =# ; @ ;' #B ;?!4 = ' #B ' !?;! '
K >< =# #?' D ' < 'E #B =' # =' + > ' !# ;' #B '
KCD ' @ # ?=' B ; ?!' # #B '; K @# '< ;@ # @;?! '
= '); =# ' 2 ;; = '#?' C! ' '' F @C# ?= 4 @?<L
K # =# D>' #B ' 8 E' ?!' #B 1 =A ?< ' A = # K ;L
!?= '8> D8 ' ='K >< =# ?!' #B ' < 'KCD ' @"' +C 4
= ' =' #B ' < =' #>< ' + @B ;A '#B ' K >< =#
?!' =>' K; @ K# ' = '#B ' < # =A' ?!' #B ' & # # '
+? '=?< = # ' = ' KK?>=# ') ?;A ' < ' #?= '?!'
== '#?' D 'A = ; 88 !C; > ;' = '#?' ! '#B # #B ;'
D '=?' &<D W 8< =# ' ?!' #B ' @C!#?< ' = '#B >'
?<< = ' = '; NC ; 'B ; 8 '?;' < @ ; '#?' K 8 '#?'
#B ' < ;@ # ;?! ' ?!' & =DC;AB4 = ' !B ; !! ' ='
#B # K ;# #?' K ! '#?' #B ' < ;@ # ;?! '?!' #B 'B '
DC;AB '?!' #B '; K @# ' B>; ' = '#?' < "' KCDL
' @ # ?=' ?!' #B ;' K; ! =# ' = ' ; = '#B '! < '#?'
D 'K; =# '#B # =?= ' < >' K; # = ' A=?; =@ '#B ;?!

' & / %' !;?<' #B ' ?<< ## '!?;' ! @C; =A'
#B 'K @ 'E '; 'EB ;?!' #B '# =?;' !?' ?E

K?;# ?!' ' % &' ?<< ## ' +? ' ?8! ;' # ' #B ;' ?K = ?='
#? ## !?;' %B # !?;' ! @C; =A' #B 'K @ '?!' #B ' #?C= ' #B '
2 =A' #B ' # =A' ?!' & # # ' < >' D ' K8 ! ' #?' A; =#
' E ;; = '#?' #B ' & ;8 'K!' 0 =4 E #B' '' FK L

?=' #?' 8 ' = ' A < =# ?!' !??# @?=! !# =A' ?!'
AB# BC= ; ' < =4 = '#?' D # +;C< < '#?' #B #
!! @#' = '#B # ?' !??=' '#B >' ; ' =' ; = 4 B '
@ C! '#B <' = ?CW ' =' #B ' DD >' @8?% ' # #B '
8 AB# ?!' = '#B # !;?<' #B
#>< '#B >' ; ' = ?CW '#B ; '#B >' B '' D '
" =' =#?' K >

S' *%' ' 8 ?' #B ;' ?K = ?=' #B # #B ' =?= ; ' =
;# ' ; ' < ='D ' ; E ='#?A #B ;4 C= ;'#B ' ?<L
< = '?!' W (8 W ;' = '; @ '#B
& # # ' K >' *< < # 8>4 = ' #?' @?=# =?E' = '
D ' < =# = '#B ; #4 '#B >' E ; ' !?;< ;8>4 B '
A =A' B '? #B' ?!' ! '# '#?'#B '& # #

8' % &' ?<< ## ' ? 'K;?K? '#B # #B ' < # =A'
?!' & # # ' < >'D 'K8 '#?'?; ;'#B 'EB? '' 1 =A9'
?< '#?' D 'KC## =' 'K@F!#C; '?!' + ! =@ ' = '#B #
D ' ?= ; 'EB?' E '' D '! ## ?!! @ ; '!?;' @?<L
< = =A' #B ' < ' # ' B?;! ' = '!??# ='#B '! ; ''
B>; ' = '#B # #B 'E # < ' B ; 'EB?' ?!' 8 # '
B ' ?; >' < 8 # ' B?;! 4 < >' B ' ?; ; ' #?' B '
D?#B' B?;! ' = '!??# '#B >' B ' ='#B '> ;' U

U' % %' E ;; = ' D ' A ='!?;' <K?;# =A' ;<
= ' <<C= # ?= ' K ;# @C8 ;8 ' (F' #B?E = '#>; '
8?@" 4 #E?' #B?E! = '<C " # ' '#B?E = ' ; D = '
'#B?E! = 'K ;' !'K #?' ' !?=# BC= ; 'D ;; 88 '
?!' K?E ;' = ' 'K;?K?;# ?= D8 ' NC =# # ' ?!' !! B#

#?= '!?;'#B '! ; 8?@" ' = ' < #@B' !?;' #B '<C8" # '
E #B' D = ' ; ']

' % %' #B '@?= # ?= ' ?!' #B '@ #8 '?!' (# ;8 =A'
D '# " =' =' @?= ; # ?=' = ' ; @?< = '#?' #B '
& ;8 ' ?!' ;;' #?' = '!?;'#B ' ' # == =#)? ;g
=?C;' 8 #?C=' #?' A ' = ' @@?C=# #B ;?!

! ' % %' #B ' A #? # ' ?!' & =DC;A4 = '#B ' W
?!! @ ; '?!' #B ' #; = ' B = 4 D ' ?; ; ' #?' A '
#B ;' ? #D a' ?!' ! '# '#?' #B '& # #

2 * ' K %# D =A' B ; ' = ' ?= ; 'D>' d ; ;' !'
#B ' & # # ' #B >' KK;? '#B ' ! ; # ;# @8 '#B ;?!'
= =# #B '8 =A' ?!' #B ' & ;8 ' ?!' 0 = '; A 9'
< =# = ' 8!?' #B ' @?= ' ;# @8 ' = =# #B ' ;# 8 ; '
< =' = ' +? 'K?< B # = ' KK?>=# W (8 W ;'
#?' @?<< = 'KI' '!?;< ;8>' 'A =A' B '? #B'
?!' ! 8 # '#?' #B ' < # =A' = ' < ## 'D @"' #?'
#B ' @?<< ## '#?' @?= ;' !C;#B ;' #B '; # ?!'#B '
;# @8 '?!' #B '; K?;# ; 8 # =A' #?' #B ' < 8 # ' = '
KC## =A' #B ' 1 =A ?< ' =' 'K? #C; '?!' ! =@ 4 #B '
<K?;# =A' ?!' ;< ' = ' <<C= # ?=4 = '#B ' ? #B'
?!' ! '# '#?' D 'A =' D '#>' A #; # ' ?!' & W
= '#?' ; K?;# #?' #B ' < # =A' W

* $ %* 'D =A' A ='?!' #B '0?; ' +C=9' M ' '
'D =A' # #B ' B '?!' 'K BT# '?!' F# 'B?;! 4
= '?!' B ' =# ; ?<C= =A' E #B' #B ' +C" '?!') ?;9'
?C= ' ? ;' #B ' @ #8 ' E '4 %B ' !?' ?E =A' ?; ;'
E 'A =

82 %=#?
,-48+-' 31-'
,25!-' 1"+,- '
%7 ""70E

1&' E ;; = ' A =' #?' #B ' K;? # !'& =DC;AB'
' ! @C; ' 88' #B ' 8 ' B?;! ' =' #B ' #?C= 4' #B #'
=?= ' D ' D;?CAB#' ?C#' E #B?C#' B ' 0 @ =@

% &' < # =A' ?C;= ' #?' # =' ' @8?@"' #?L
<?;;?E

& + * ') ' G7' ;@B' G

%' !?;' KC## =A' #B ' 1 =A ?< ' =' ' K?!9'
#C; ' ?!' ! =@

+) *' # =A' ?!' #B ' & # # ' ?!' #B ' & =A ?< '
B ' #B?CAB#' ! ##' #?' ;# ! ' = ' ;# ! ' #B '
0 A 4' #B #' !# ;' = ' @#' = ' ?# ' ?!' #B ' & # # '
!CD! ;>' ' D>' #B ' < <D ; ' + @8 ; =A' Q = @# =A'
#B #' #B ' & # # ' E?8 ' ?=# =?E' #B ;' < # =A' C=9'
! ?8 ' C=8 88' #B >' B?C8 ' #8 ' = ' ! @ ; ' #B 9'
/;?# !# =#' 8 A ?=' %B ')? ;=< =#' 8 E ' = ' 8 L
D ;# ' ?!' #B ' 1 =A ?<4' ;#B 8 ' ! ; 88' K ;9'
!?= ' EB?' ' @?=@C;;' E #B' #B <' =' #B #' ?# 4'
= \! D! ;> ' #B ' ! < ' B ' Y# ' #B ' < #L
=A' ?!' #B ' & # # 4' = ' !?< ' ?!' #B <' B > ' K; L
!C< ' ?\` =8>' #?' @?;; K?= ' E #B' #B ' +C" ' ?!'
)?; ?C=' =@ ' #B ' K;?@8 < # ?=' ?!' =# ;@?<C= =A'
A = #' B <' = ' #?' ; # ; ' !;?<' #B ' K8 @ ' =' !?;< ' '
?!' E ;' %B ;!?; ' #B ' & # # ' +? '; NC ; ' 88' ! @B' ?!'
#B ;' < <D ; ' ' B ' ! ;# ' #B ' < # =A' E #BL
?C#' @NC =# =A' #B ' & # # ' ?;' #B ;' K; =#' #?'
; #C;= ' E7' 88' @?= = =@ ' #?' #B ' < # =A' ?!' & L
4' = '8 " E > ' #B ' & # # ' ? ' ;# ! ' = '
; NC ; ' #B ' EB?88' K;?# # =# ' ?!' #B ' 1 =A ?< 4'
D #E F#' F#>' = ' ! F# =' #?' B ' =' ; = ' E #B'
#B ;' D #' B?;! ' = ' ;< ' CK?=' ;# ! < =#'
!;?<' #B ' < # =A' ?!' & # # 4' = ' 8 " E > ' #?'
B ' #B ;' < 8 # ' =' ; = ' #?' ; @ ' !C@B' ?; ; '
' B 8' B ' ; @# #?' #B <' !;?<' #B ' ' & # # 4'
!?;' ! @C; =A' #B ' / ;?# # =# 8 A ?=' #B ' 8 E ' = '
8 D ;# ' ?!' #B ' 1 =A ?< ' = ' ?; = ' #B!;' K; 9'
! =# ' #?' D ' K; =# ' = ' KCB8 B ' #' #B ' < ;@ #'
;?! ' ?!' #B ' ! ; 88' B ' C;AB ' ?!' #B ' 1 =A9'
?< ' #B #' =?= ' < >' K; # = ' A=?; =@ ' #B ;?!

%' =?< = # =A' #B ' ?!! @ ; ' ?!' 8 # ' =
#B ' B>; ' ?!' ;E "

' 7
U % &' # =A' ?!' #B ' & # # ' # " =A' =#?' #B ;'
@?= ; # ?= ' #B #' K ' & ;8 ' ?!' C< ' !?;< ;8>'
?88?= 8' ?!' #B ' < 8 # ' ; A < =#' ?!' #B ' B ; ' ?!'
;E @"4' B #B' E #B ; E =' !;?<' #B ' < # =A' ?!' #B '
& # # 4' = ' #B #' #B ' 8 ; ' ?!' 0 =A#?C=' >?C=A ;'
!?;< ;8>' 0 # == =#' ?'?= ' #B ;?!' ' !C!K @#?!'
?;; K?= =@ ' E #B' #B ' !@?C=#' ?!' +C= ' EB?'
B #B' E #B ; E =' B <! 8! ' =' ;< ' E #8 ?C#' #B '
?; ;' ?!' #B ' & # # ' %B ;!?;' #B >' ? ' KK?>=#' #B '
8 ; ' ?!' 0 =A#?C=' 8 ;' #?' D ' ?'?= 88' = ' J?B=' '
C< ' ?!' >= E 88 ' #?' D ' 8 # == =#' ?'?= 88' ?!'
#B ' ! ' ; A < =#' =' #B ;' K8 @ ' = ' KK? =#' #B <

#?' A ' =' ' ?= !@ = = ' ?!' ! ##' K ;!D= ' #?' D '
#B ;' =! ; ?;' ?!! @ ; ' ' 8!?' #B >' ?; = ' (!' / #L
; @"' C< ' ?!' / ?8E ;#' #?' D ' K# =' ?!' #B ' < 8 # '
#;?CK ' ?!' #B #' B>; ' E #B' K?E ;' #?' B <' #?' KK?>=#'
B ' 8 # == =#' = ' ?#B ;' =! ; ?;' ?!! @ ;

' 2 +' E ' A =' #?' J?B=' C< ' ?!' 1# '
>= E 88 ' #?' ! @C; ' #B ' < 8 # ' ;< ' ?!' #B ' B ; ' ;E @" '
?!' ;E @"4' = ' #?' < ;@B' E #B' #B ' < 8 # ' ; A L
< =#' #?' #B #' !! @#

+ & & +' #B #' (!' J?B=' #8 = ' ?<< = ' !88# !??'
#B ' < 8 # ' !??#' ; A < =#' =' #B ' B>; ' ?!' & =L
DC;AB' ' ?'?= '4' = ' #B '& ;8 ' ?!' 8?#B =' #?' B ' DC;AB
K# =' ?!' #B ' B?;! ' =' #8 #' B>;

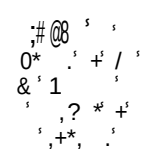
+ & & +' #B #' ' +;C< <?= ' ?!' @9' P 1 *
@ ;#?C=' ?<< = ' #B ' < 8 # ' B?;! 4' =' #B ' B>; ' &+*, '
?!' 0 =8 #BA?E' = ' / D8 4' = ' J!' #B '8?; ' ; ;?! ' Q /('
?<< = ' #B ' < '# ' !??#' =' #B ' B>;

+ & & +' #B #' ' +;C< <?= ' ?!' @9' *!!# ' ?!'
K# =' ?!' #B ' < 8 # ' B?;! ' =' #B ' B>; ' ?!' 9' E . 0 &
=A#?C=4' = ' (!' J < ' >' ' ?'?= 88?!' #B '
< 8 # ' !?? #' =' #B #' B ;

' 2 +' A =' #?' ! =#' ; @B#?C= 9' (=@
E ! ' #?' A? ' = ' D; =A' #Be;' @8! 8 ' ?C#' ?!' #B ' #8 '
?!& BDC;AB

% &' < # =A' ?!' & # # ' D ' A ' ?; ;' = ' E ;9! 2 =; =@!#?!
; = ' #?' #B ' & ;8 ' ?!' ;A>8 ' #?' '" !?;' ! =#>' ;A>'"
!>; 8?@" ' !;?<' #B ' O?; ' #8 = ' ! =#>' !>' ' !>; ' A ## KA5
8?@" ' !;?<' K# =' / #; @"'); < 4' = ' !;?<' #B '
& ;8 ' ?!' 8@ ;; ' #E ' BC= ; ! ' !>; ' 8?@" ' #?' D '
; K8?> ' D>' 8C<' =' #B ' B = ' ?!' #B ! ' =' #B '
(B>; ' ?!' ;A>8 4' EB?<' B ' ' #?'; ! ' = ' @?<< = '
!?;' #B ' ! @C; # ' ?!' #B ' K @ ' ?!' #B ' * =A ?< ' = '
?!' #B #' !! >; ' =' K ;# @C8 ;4' EB @B' ;< ' D? ' E; #L
=' E ; ' # " =' ?C#' ?!' #B ' 1 =A ' < A W =

+ & & +' #B #' CK?=' #B ' +C" ' ?!')?; ?C= ' &= !A=
! ; ' ' ' AC ; ' D ' A =' #?' J < ' 2 =@ !# ;' 2 =@B #
=! A= ' ?!' #B ' @ !#8 ' @?<K =>' !?;' !K " =A' E #B'
(!' J < '); =#' = ' !' %B?< ');?; ?C=' =' #B '
! ! ?=' B?C! ' #B ' >' =' K; ! K ' ?!' ?= ' ?!' #B '
< <D ; ' ?!' #B ' < # =A' C#' #?' D ' ! ! 8>' =#' D @"'
?=@ ' #B ' = AB#' = ' = ' E ;; = ' A =' #?' #B '
& ;8 ' ?!' 0 =' = ' K# =' 0 E ;' !?;' #B #' !L
! @#4' = '#B ' E ;; = ' !?;< ;8>' A =' D>' #B ' 0?; !'
K; ! =#' #?' (" 8<?;8 ' K# =' 0 E ;' = ' KL
=' ;!# '' #?' !K '" E #B' #B ' +C" ' ?!')?; ?'' '
E ' KK;? =' D>' #B ' < # =A



#? 8 #?A #B ; #B =B D # =# = E #B #B ; ?=@C;; =@ #? ! W CK?= Q ! @C; #B   !; @?C=# ?! +C=   = ?#B ; = ;#= E #B B < = #?; NC ; #B @?=@C;; =@ ?! #B A ; !?= = #B @ #8 #? #B # !! @# EB? ; B ; D> ?; ; #? D ! # =A #? #B   < A #; # !?; W =A ?= #B   !@?C=# ?! +C= 9

%&)+6 6 , + <*+7 , 3+* .+ ,+* / *. , . & 7 & * , 7+* +, : * 5+ > * ,+ * H 8 - .

% & # =A ?! #B & # # B =A B ; = ?= ; #B K?;# ?! #B @?< < ## !?; @?=9 #; ;# &8 @# ?= 4 D ; =A #B # #B > B =A B ; = @?= ; #B ?D @# ?= < D> #B ; K ;# = =# #B + D # D8 8 @# ?= ?! #B DC;AB ?! D ; = *# #B K = ?= ?! #B @?< #9 # #B # #B 8 @# ?= =! ?C; ?! K;? #) ?; ?= ; AC8 ;4 = #B # B E 8 @# D> #B K8C; 8 # ?! B D 8 DC;A 8 = \#B ;!?; B ?CAB# #? D K; ! ;; #? 8A 2 8# ; ?D ;# ?= %B & L # # B KK;? = = KK;? #B ; K?;# = =# ;K?= #B ; C#B?; # #B ;#?

,1 , 0 : -& *0

 2 & + A =!?; ! ! @?= C@# #?9&=9 A= 2 =@ !# ;#? ?< !C;#B ?! #B @ #8 ?! & # # = @8?@"" #?<?;;?E = #?! #C;= D !?;= AB# =#B # ; < ?! #B !?;< ;E ;; =

/ 0 %* A =!# / K !#

V % & * * # =A ?! #B & # # ?! #B 1 =A ?< @?= ; =A DC =A ; = B W ; #B ; 8 A ?= K @ = NC # ?! #B & =A ?<   = D> #B A;?C#B = =@; ! ?! K?K ; = K K # ?! 8 # ?@@ ! ?= D> #B *<K8?> =A #B < = K8 @ ?! A; # #;C!# E #B =#B 1 =A ?< = @?=# =?E9 =A #B < = K8 @ = ?!! @ @ ' = < 8 # ;> = 88?E =A #B < #? F ;@ ! #B ! < !; 8> = 88 ; K @# K;?# # =# A = # #B # = =A 8 E ?! #B 1 =A ?< #B?CAB# ! ## #? + L @B ;A = B ; D> B A 88 K K # !;?< F ;9 @ ! =A => @ 88 ?; < 8 # ;> ?!! @ E #B = #B 1 =A ?< 4 = !;?< F ;@ ! =A !! ; !! ?! B>; 4 # E ;# ?! # E ;#; 4 8A ?!; A B# 4 B8 A #; # ?! DC;AB 4 JC # @ ?! K @ 4 ?88?= 88 4 0 # = =# ?88?= 88 K# = ?! B?;! 4 = ' ?#B ; ?!! @ ; = #B < 8 # ?; %> =A ;< #B ; = C= ; #B K = = K = 8# @?=# = = #B @# ?! / ;8 ! = !?; #B !C; ; ! C; # ?! #B KCD8 @"" K @ = NC # %B >; NC ; = ?<L < = 88 K K # E #B = #B * =A ?< ?! EB #9 !?< ; ; ="" ?; @?= # ?= %? +@8> ; CK #B ; < X&F@ K# =A A =#8 < = #B ; ?; = ;> E ;L =A E?; #? #B !! ; !! # E ;# 0?; ?; 8 ?! ; A 8 # = * * A #; # ?! DC;AB E #B = EB? C; @# ?= #B > 8 W %B ?= #B ?C#B!> ?! #B E # ; ?! & "" E #B = F > !# ; KCD8 @ # ?= B ; ?! # #B <@;@ # @;?! ?! #B B DC;AB ?! #B B % = #B ?= #B =?;#B9 > ?! #B E # ; E #B = # = > !# ; #B < ;# ! =A !C@8 !8 88 B !?C= #? 8

=> ;< !# ; #B > !?;! ; K @# #B > B 88 D K;?@ A = # E #B 88 ; A?C; !?; #B ; @?=# <K# = ?D =@ = ; = = L NC ; #B !! ; !! = ?#B ; < A #; # !?; ?; *=@ ! ?! #B ; = A8 A =@ %B ?88?= 88 ?; 8 # = =# ?88 ?! #B < 8 # !??# ?; @ K# = ?! B?;! #? ! ;@B !?; = W CK?= => ;< 4 E Y #B > B 88 D =!?;< #? D " K CK C= 9 8> ; D 8?=A =A #? K K !# = => B?C! ?; K8 @ C K @# = #? @C; #B < 4 = #? ; #C< = F @# @@?C=# ?! #B ; 8 A =@ L #E F# = #B + > !?88?E =A W #B ?= #B !> ?! & " #E F# = #B # =#B > ?! K;> ' = F#4 = #B ! D =?;#B #B ! < 4 #< F# = #B #C =#> > ?! K;> ' #B > E ' D =!E ; D8 ?= #B ; B AB # K ; ' = #B & # # + ? ?< = = B ;A ' K K # =?# D =A =B D #L =# ?! #B #?C= ?! & # ?; => K8 @ @ =# #B ;#? #? ; <? # = < 8 !;?< #B #?C= 4 ?; # 8 # #? #B ; ; K @# + C 88 =A K8 @ E ! !?C;#> AB# B?C; !# ; KCD1@ !! B ; ?! C= ; 88 B AB # K = = A; =# ; ; = E ;; = #? ; 8 < @ ; ?; < ! =A ; # ;< !! ; !! #B # K ;# #? K ! #? #B < ;@ # ;?! ?! & =DC;AB = ; < = =# < ;@ # @;?! ?! #B ! ; ' B DC;AB ?! #B B>; = < " KCD8 @ # ?= B ; L ?! =# #B C!C 88 < = ; = ?; = #B ; K; ! =# #? D K; =# #B # =?= < > K; # = *A=?; =@

(* J?B= + 8;><K8 #? #B @?< ## !?; *' +, ' * F @C; =A #B K @ ?! #B 1 =A ?< 9

% KK?>=# =A * 2 88 < ? A ; ?88 @#?; ?! #B !CKK8> = #B !! >; ?! ;

%& & * * # =A ?! & # # @?= ; =A #B # #B ; =? @? ' @#?; ?! #B !CKK8> # K; ! =# = #B B>; ?! ; %B > B ?< = # = KK? =# 4 = B ; D> ?< = # = KK?>=# * 2 ' < ? A ; = 1 8E = =A #? B ?88 @#?; ?! #B 8 # < ;# < # ; < !CKK8> = #B ! !! >; ?! ; E #B K?E ; #? B < #? ? ' @# #B !CKK8> = #? C! 88 F @C# ?= @?< K # =# !?; #B ! < = #? ? 88 ?#B ; #B =A = #B # ?!! @ 4 EB @B => ?- ?88 @#?; +? ?; B D = = C #? ? = #B # = ; 9 A ; 4 @?=!?; < #? #B ?; = =@ ?! #B < # =A ?! #B & # # B B !?C= !C!! @ =# @ C# ?= #? (; %B?< * *?=@; ! ?! #B # 8" = ?! #B @8 ;" ?! F@B NC ; ?=!?; < #? = @ ;# ! @ # !CD! ;> D> B <

%&)+6 < ! ?= A; =# #? ! ; / #; @"" E+6 ?! / ?8E ;# K; L ! ;; #? #B #B ; A; =L #? >?C=A ?@"DC;=

% & < # =A ?! #B & # # B =A B ; = @?= ; #B ; K?;# ?! #B @?< < ## @ !?; @?=#; 9 ;# &8 @# ?= D ; =A #B # # # #B ; ?K = ?=4 #B # #B @?< < ! ?= A; T = #? #B 8 ; ?! / ?8E ;# !?; ;@K; 8 =# =A #B B>; ?! * * ;! 4 D K ! =F #? #BX @?< < ! ?= A = #? #B 8 ; ?! ? "D C7= >?C=A ; *= ; -` @# #B # #B 8 ; ?! ?@"DC;=

?#B D! =# B <! 8! ! !;?<4 #B < # =A ?!# #B & # # = ! 8 #?@?<K ;D !?;#B @?<9 < ## = #B #/?8E ;# D =AK; ! =# E ; #?# " ?!#B ?D @# ?= A = #B 8 @#?; 4 =?;= #;C@# #B ;B D 8 # 4 = #B # ?@"DC;=D =A D! =# ⫴=?# # " ?!#B ?D @# ?= A = #B 8 @#?; 4 =?;= #;C@# #B ;B D 8 # %B < # =A?!# #B & # # B KK;? = = ? KK;? #B ; K?;# = K; ! ;; #B ?<< 8 ?=A; =# #?#B 0 ; ?!/?8E ;#

+& &+#B # #B < <D ; EB?; D! =# D; 7 7 ;# ! #?## = =#B <# =A#?L <?;;?E

% &< # =A?!#B & # # +? B ; D> NC ; L <?;?E

% &< # =A?!#B & # # D =A =!?; < #B # ; E!C; ?!; < 8 =B =B @C #? #C =#>!?C;!>; 8?@" ?!B KCD8 @"; < %B >A; =#?; ;= E ;; = #?# ?!; ;8 #?C= #?# ! W CK?=#B < !?;#B C! ?!#B C; @# ?= ?!) ;; @"

% &< # =A?!#B & # # B =AB ; = ?= ; #B ; K?;#?!#B @ <<## !?;@?=#;?L ;# &8 @# ?= D ; =A #B # # #B ;?K = ?=#B # ! A ?!E 88 @?<<8 ?=?CAB##?D K; L ! ;; !?;; K; ! =# =A#B DC;AB?!1 ;" 8 4 #?#B ?<<! ?=A =#?K# =% == =#*=; K @# 8A 4 ?!E 88 @?<<!! ?=@?= =# #?D>#B K8C; 8 #>?!#B B D 8 DC;A ! #B >? ? KK;? #B 8 < = =# ;K?= #B ; C#B?; # #B ;#?

% &# # B =A@?= ; B K;?K? 8 < #B >!;?<#B +C" ?!) ?;?C= #B ?!! 88 = =# #B ; < ## =A #B K? # = =C C=#?#B #?C= AC ; %B & # # ? A; #B # #B K? # = =C B ; < ## #?#B #?C= AC ; = #B & ;8 ?!0 = ; A < =# #B # >EB ;?= B B 88@?< ?C# ?!#B @ #8

: ** .,+* <*+7 . 0 ?+,* 00+

% &< # =A?!#B & # # +? ?; =#E?!; AL A?## #?D K;? > #?;C W ?=#B E !# @? !# ?!#B 1 =A ?< 4 = KK?>=# (J < ?=#9 A?< ;>?!(" 8<?;8 J?B= = ;!?= ?!+?EB 88 = J?B= ?!E 88 #?8@C8 # #B @B ;A 4#B ;?! !?; <?; #B = #?*<K8?> K# =2 88 < < 8#?= = K# =J?B= ;?C= XEB?; #?? <<= #B !; AA?## #?8??" !# ;! ## B K = ! < =4 E #B K?E ;# #?#B K ;!?= #?< " D ;A =#B ; = =# = #?K?;#

(#?#B #B ; = =# #B *= <= # %B & # # ? A; #B #) ?; ?C=?!C@B =9 #?C8 =) ?; ?= ?!8?!# ;; = B 88 D = <= ! #?#B ;@# =A =KCD8 # *<9 K8?>< =#4 D =AK K # 8!? #B >+ @8 ;⫴#B # #B >E 88 A; =# K ! #?=>K K # D =A@BC;@BL < =4 #B # B B 88 @?= ! =CK?=#?; <? ?C# ?!#B 1 =A ?= #B >! = =A@ C# ?; #B # #B > B 88; <? E #B =# ; =#> >

% &# & # # ? 88?E#B +C" ?!) ?; ?= = 88 . K K # =#B A ; !?= C= ;B @?<i= = ⫴ ⫴ ⫴ &9 9

=?# K;?B D # ' D>' #B ' 8 E' #?' 8 ' EB ;' #B ;' # # ' ; ' ?;' #B ;' ?@ ! ?= ' = @ ! ;8>' @ 88' #B <' #B >' D B =A' #B <! 8 ' K @ D8>

% &' & # # ' * ? ' A; ' #B #' #B ! '?!' #B ' A ; !?= ' < >' # " ' J` A?? ' ?C# ?!' #B ' @ #8 ' #B >' ? =A' -` ' < ' =' J` ' >' #>< ' = ' #B #' J` ' A ; !?= ' B 88' =?# D ' DC; = ' E #B' = #;C@# =A' EB #' A?? ' E ; ' #B ; ' C#' !' ?#B ;' K ;!?= ' B 88' @B 88 =A ' =>' ?!' #B ' A?? ' ' D 8?=A =A' #?' #B <' = ' = #;C@# #B ' ! < ' #B >' < C #' K ;#' E #B' #B <

% &' & # # ' +? ' 88?E' #B ' 8 # == #')? ;9' =?C;' = ' = ' ! ; =#' #?' ; < = ' AB#' > ' =' B ' 8? A =A ' ?!' #B ' @ #8 ' !# ;' !C;; = ; =A' #' !?;' @8 ; =A' B ' !! ;

(' #?' #B ;' @ ; =A' ?C#' ;=; ' K;?K ;8>' D 8?=A =A' #?' #B <! 8 ' %B ' & # # ' +? ' 88?E' #B ' @?=K < !' ?= #' ?!! @ ;' = ') =#8 < =' #?' ;; ' ?C# #B ;' DC= ' ?; = ;>' % ' ;< 4' #' ' #?' ?#B ;' =' #B ') ; !?= ' %B ' & # # ' E '' =?# 88?E' #4' ?# E '8 K >' #B <' !?;' #B ' !>; ' ;< ' K;?K ;8>' D 8?=A =A' #?' #B < ' = ' + @8 ;' #B #' #B ' +C" ' < >' @ ;;>' B ' ?C=' E ; =A' ;< ' ' ?#B ;' ?!' #B ' 8 A

* * &' #B ' +C" ' ?!') ?; ?C=' @NC !@ '#?' #B ;' ;# @8 ' %B ' & # # ' =?< = #' = ' KK?>=#' (J < ' ?=#A?< ;>' ?!' (" 8<?;8>' (J?B=' + 8;><K8 ' = ' J 2 88 <' < 8#?C= ' #?' < #' E #B' (J < ') ; =#' = ' %B?< ') ?; ?C= '#?' ! '#B ' ;# @8 ' &F# = ' = ' #B ' #; #>' #?' B ' #' = ' = ' #?' <?;;?E' D ' # =' ' @8?@"' =' J ' !?; =??=

% &' < # =A' ?!' #B ' & # # ' B =A' B ; ' = ' @?= ; ' ; K?;#' ?!' #B ' @?< < ## ' !?;' 8 @# ?= ' ; =A' #B #' #B >' B =A' @?= ; ' #B ' @?=#; 9' ;# ' @ C< ! ?= ' !;?<' #B ' DC;AB' ?!' J DC;AB4' !# ;' B ; =A' #B ' K ;# ' = ' F < = =A' E #= !!' %B >' ! = ' #' K;? =' #B #' #B ' < A #; # ' #B; #= ' = ' < = @ ' #B? ' EB?' ?!! ; ' #?' K;?# #' A = #' #B ' @8 = # = ' < ;" =A' ?!' #B ' ?# ' !?;' ?D ;#' = 8 >' = ' #B #' #B?! ' EB?' ?# ' !?;' <' =!8 >' E ; ' #B; #= ' D>' #B ! ' < A #; # ' #?' B ' #B ;' B ' D;?" =' = ' #B #' #' ' @"=?E8 A ' D>' ?D ;#' =!8 >' #B #' /?;# ?C ' EB?! ' = < ' !CD! ;> ' #' !C88' 8 =#B' #?' #B ' ! ' ?D ;# ') ?<9' < ! ?=' @?C8 ' = ;' E; # ' = ' #B ;!?;' *#' ' #B ;' ?K = ?=' #B #' ?D ;#' = 8 > ' @?< < ! ?;' ' =C '' = ' 88 A 88' = ' #B #' <' = 8 > ' @?< < ! ?=' ?CAB#' #?' D ' K; ! ;; ' %B ' & # # ' +? ' KK;? ' #B ' '; K?;#' = ' =# ;K?= ' #B ;' C#B?; # ' #B ;#?

% &' < # =A' ?C;= ' # 88' #?<?;;?E' # &8 =' ' @8?@"'

& + * ') SS' ;@B' G

% &' < # =A' ?!' #B ' & # # ' +? ' =?< = # ' = ' KK?>=#' J?B=' '4') ?;A ' (# ;8 = ' = ' ' 2 88 <' < 8#?C= ' ?;' =>' #E?' ?!' #B <' #?' ! ' #B ' ? #B' ?!' ! 8 # ' < = !# ; ' #?' !C@B' ' B ' =>' < 8 # ;>' *<K8?>< =#' =' = ' D?C# #B ' #?C= ' ?!' & =DC;AB

+ & & +' #B #' 2 88 <' +;C< <?= ' + KC# ' 1 K ;' ?!' #B ' (#?; ' D; =A' =' = ' F @#' @@?C=#' ?!' C@B' ;< ' ' ; ' =' K` ' ! ; 88' A ; !?=

% &' < # =A' ?!' #B ' & # # ' +? ' A ' ?; ;' = ' E ;; = ' #?' 2 H' + ;C< <?= ' + KC# ' " K ;' ?!' #B ' (#?; ' #?' ; K ;' #?' (# ;8 =A' = ' #?' + 8>' ;' #?' J?B=' = ;!?= ' ?!' +?EB B' ?;' =>' B =A' B ' ?; ;' CK?=' ; @ K#' ?C#' ?!' #B ' < A W = ' ?!' (# ;8 =A' @ #8 4' !?C;' #B?C! = ' <C " #' ?= ' #B?C! = ' K @" ' = ' BC= ; ' D ;; ' ' ?!' K?= ;' E #B' < #@B' = ' =L ?8 ;' @?=!?;< ' = ' = ' BC= ; ' @B #' ?!' 884' = ') ; =#' E ;; = ' #?' #B ' ' J?B=' = ; ?= ' #?' = ' #B ' ! < ' #?')8 A?E' E #B' ' !C!! @ =#' AC ; 4' = ' ; = ' 2 88 <' K ;' K; ! =#' =' ?!') 8 ' %B?< ' ; E!C; ' >?C=A ;' ?!' ; E!C; 9' DC;=' J < ' / ' ?!' ?@B 88' = ' E' B8?=#A?9' < >' < ;@B = '#B ;' EB =' #8 ' ' ;< ' = ' <C9' = # ?=' B 88' D ' D;?CAB#' #?')8 A?E' #?' ! @C; ' #B ' < ' =' #B ' #?8D??#B' #B@;?!' C=# ' ' !C; ;' ?; ;' = ' #B >') ; =#' E ; = ' = ' K?E ;' #?' #8 ' ' 2 88 <' K ;' %B?< ' ; E!C; ' J < ' / ' = ' *8 E' B8?=#A?< @ >' *=@ @ ' ?!' = @ ! # ' #?' E' #?9' A #B?;' #B ' ! =@ B8 ' < =' =' #B ' ' #?C= ' = ' #?@ C8 ' " K' ' E #@B' = ' ; ' !?;' ! @ ; #>' ?!' #B ' #?C= ' = ' K ;# @C8 ;8>' !?;' ! @C; # ' ?!' #8 ' ' ==?

%B ' ?<9' < ! ?=' =' ! ?; ' ?!' + ' (K =@ ' !?;' =!#;C#B ;' @ 88 ;' K; L ! ;; ' #?' #B ' #B ;' A; =#L ' #?' ?D ;# =!#;C#B ;

MM ' & ' < ' +,' & ') 0

! ' #B' #?' D ' # " =' D>' #B? ' =' ' < 8 # ?>' =; K8?>< =#

: ** .' ,+* , . 0' *6 ' +' 3 ,0+ :

' *(=

& + * ') (*(7 ;@B A

2 ;; = '#?' #B ' & ;8 ' ?! *** + 88?E' ;< ' #?' D ' # " =' ?C# ?!' #B ' #8 ' ?!' * 0

2 & ('#B ' < # =A' ?!' & # # ' B 'D>'#B ;' ?; ;' ?!' #B ' # KK?>=# ' 2 88 <' + ;C < < ?= ' #?' A ' ?C# ?!' #B ' < A W = ' ='#B ' @ !#8 ' ?!' (# ;L 8 = ' #?' J?B=' = ;!?= ' ?!' +?EB ''?;' B ' ?; ;' CK?='; @ K# !?C;'#B?E! = ' <C " # ' = 'BC= ; ' D ;; ' '?!' K?C ;' E #B' < #@B' = ' = 8 ; '@?=9' !?;< ' ?= '#B?E! = 'K @" 4 = ' = 'BC= ; '@B !#' ?!' 88' %B ' & # # ' +? ' A; =# 2 ;; = '#?' #B ' & ;8 ' ?!' ;;' B ; # D8 ' A? ;=?C;' = ' 1 K ;'?!' #B ' !#8 ' ?!' (# ;8 =A' #?W 88?E'#B ' ' ;< ' = ' <C= # ?='#?' D ' # " ='?C# ?!' #B ' '@ !#8 '#?' #B ' !! @# !?;! ' '

%'?!' KK;?D # ?=' =' ! ?; '?!'#B ' & ;8 9' W ?!'%E 8 ' '7

' 2 & ('#B ' & ;8 '?!' %E ''B ' ; K; ! =#9' '#?'#B ' < # =A'?!' & # # '#B # ?'?= ''0C= ')? ;=?C;' ?!' 0?= ?= ;;>' =A' D>'#E?' < !# ' 8 ## ; ' #?' ?;') ?;A ' <?# A= ! '#B ' A; # =A ;' #B ' K;?# # =#' =B D # =#' ?!' #B # #?C= ' 2 ;' =' !;?<' #B ' K?K !!' K ;# ' = '#B ;' E =# ?!' ;< ' = ' <<C= # ?=' = ' ' ;= #8>' !>; '!?< '!# KK8>'#B ;?!' !?;' #B ;' + ! =@ 4 = ' '! = '?= ' < 8#?C=' < ;@B =# = 0?= ?= ;;>4 E #B' 'D ;" '!?;' #; = K?;# =A' #B ! ' ;< ' = ' <<C= # ?=4 EB @B' D =A' A= ! '#?'K ' & ;8 ' = '#B ' !?;! '#E?' 8 ## ; '#; = < ## '#?' B <' 4 *=; K @# ?!'#B 'K; ! =A'@?= # ?=' ?!'#B ' ! 'K;?# # =# 4 = '#B ;'D =A'=?'?#B ;'@?=<< !9' ?= ;' ?!' #B ' #B ! C; ; ' B ; ' CK?=' #B ' K8 @ ' + 'A 'E ;; = '#?' 2 8B <' +=<<?= ' KC#>' 1 K ;' ?!' #B ' < A W = ' %?' + 8>E ;'#?' #B ' ' < 8#?C=' < ;@B = '!?;'#B 'C! '!?;! ' !?C;# '?= 'D ;; ' '?!'K?C ;'CK?=' K >< =# ?!' #B ' K;>@ 'EB ; #'#B '! < 'E 'D?CAB#' EB @B' E 'K >L ' @@?; =A8>' 2 B @B' D =A' @?= ; ' D>' #B ' < # =A'?!'& # # 4 %B >'+? ' KK;? '?!'EB #'#B ' ' & ;8 ' B ' ?= ' =' A BA' 2 ;; = '!?;' 9' 8> ; =A'#B ' 'K?C ;' D =A' '! !?= D8 ' CKK8>' #?' #B ' 'K;?# # =# ' = '+ @8 ; '#B #'#B ;'K; 79 ! =# ' B 88' D ' = ' C!! @ =# F?= ; # ?= '#?' B <

M ' & < / -(, + 0

+ & & +' #B #' J?B=' +;C < < ?= '8 # 'A = ; 88' ; @ ;' A ' =' = ' @@?C=#?!'EB #'B ' = ' FE 88' ?!' 1 ;"?== ''#B ' ?#B ;' @ ;' B ' A?## =' ='?!'#B ' KCD8 @"' <?= > ' = 'A 'CK'#B ' ! @ =@>'?!'#B ' ; K @# '@?88 @#?;

E ;'D>')?; ?='

% &'0?; 'K; =#' '*=# < # '#?'#B '= # =A' #B #'#B '+C" '?!')?; ?C='B '; #C;= '!! ' =!E ;' #B #' B ' E?C8 ' =?# A 'CK'#B ' @ !#8 ' CK?=' #B ' # ;< '?!! ; '#?' B <' D>'#B ' < # =A'?!'& # #

%B ' < # =A' ?C;= ' # 88' B 8! ' = ' B?C;' K #'=>= '#?' <?;;?E

% &' # =A'?!'& # # ' ? ' A ' ?; ;' = ' !E ;; = ' E ;; = ' #?' #B ' < A !#; # ' ?!' *=C ;" #B =A' = ' 3C = ! ;; '#?'" K'AC ; ' = '! @C; ' =>' C K @# + ' ' K ;!?= ' K ! =A' #' #B ' 3C = ! ;;>' C=# 88' #B >' ! ;;>-7' A ' = ' @@?C=#?!'#B ;' !! ;

%'!?;'! @C; =A'!C!K @# K ;!?=

% &' # =A'?!'#B '& # # '# " =A'#?'#B ;'@?=9' *)6 ; # ?= '#B # ; 88' K ;!?= 'B 'D ='! ='=' ;< ' @?< =A' !;?<' *=A8 = ' ?;' A? =A' #?4 ?;' @?< =A' !;?<%; 8 = 4 = '#B ' =A ;'#B # < >' #B ;D>' ;>! '#?' #B 'K @ '?!'#B ' # ?= ' ='#B ' C=@#C; ' +? '#B ;!?; ' C#B?; W ' = ' ; NC ; ' 8#' W (B ; !! 4 (# E ;# 4 8A '?!' 8A ; ' ' 9'

A # ' = '#B ;' KC# 4 < A #; #' ?!' DC;AB 4' C # @ '?!'K @ ' = '?!! @ ; '?!'#B '< 8 # '#B;?CAB' ?C#'#B '& =A ?< '#?'?D! ; ' = '# " '@ ; 4?!'#B ' B ABE > 'K?;#'! ;; ' = '?#B ;'K ! ' = 'K8 @ ' ?!'; !?;#E #B ='#B ;'; K @# 'D?C= ' = '#K'! W ' = ' ! @C; ' =>' C K @# ' K ;!?= ' EB?' B 88' D ' !?C= ' =' ;< 4 = '@ ='A ' =?'; !?= D8 ' @@?C=# ?!'#B <! 8 ' = '#B ;' !! C' '#?'#B ' ' < A #; #' ?;'?!! @ ; 4 = '?; = '#B ' @?88 @#?; '?!' C #D< ' 'E # ; ' #'#B '; K @# 'K?;#'! ;; 'Q B = ' #?' A ' #>< ?C ' =?# @ ' = ' 8 # ' !C@B' K ;!?= ' #?' #B ' < ' ; K @# ' < A !#; #' = ' ?!! @ ; '!?;' #B #' !! @#4 = '!?;'#B ' =@?C; A < =#?!'#B '! ' < A #; #' = ' ?!! @ ;' %B ' & # # ' @8 ;' #B #' EB ;' =>' !C@B' K ;!?= ' =' ;< ' ; ' KK; B = ' = ' @ ='A ' =?'; !?= B8 ' @@?<K#?!'#B < 8 ' = '#B ;' !! ;' #B ' ; F ' < #; #' = '?!! @ ;' E9B?' B 88' B KK ='#?' KK; B = '#B <'!8 88' !# ;'#B >' ; '#;> ' = '@?= @# '?!' =>' 88' ! A= ' /-' #B ' KCD8 @"' K @ ' B '#B ' B?;! ' = ' ;< ' ?!4 !C@B' K ;!?= '!?;' #B ;' ; E ; ' = ' ; ='#B ! ' K; ! =#'#?' D ' =# < # ' #'#B '< ; # ;?! '?!'#B ' B 'DC;AB ' ?!' #B ' ! ; 88' *B>; ' ?!'#B ' 1 =A9' ?< '#B #' =?= ' K; # = ' A=?; =@ ' = ' #B #'#B ' ! < 'D 'K; =# ' W

' 0 ## ;' !;?<'#B ' & # # '#?'#B ' 1 =A' ?!' *=AL 8 = ' =' =!E ;'#?' B ' # '8 ## ;' ; @#'#?'#B <' D =A' ; ' ?# ' = ' KK;? =' +?CD8 ' #B ;?!

E ; ?; ; #?D !CD!@;> D> 88 #B < <D ; 9?!#B < # =A = #B , ?; ?! = < #?A? 8?=A # E #B #B 8 ## ; ?= #B KCD8 " B ;A ‖ ?! EB @B 8 ## ; #B # =?; !?' E

‖ > # /8 >?C; # @

/ * + C 0 +, 1 0 .

(8 A ?= 8 D ;#> = 8 #E ; #B ; # @?=9 @ ;= ?!< =" = (? #B K ! = ?!#B F9 >; <B W ; #B E ; FK? #?<C # K;? C@ !C # D8 ; #C;= !;?<#B 1 =A ?< ?!(@?#8 = #?>?C; # @‖EB?<= ' ! =@ ; # = A; # L #C 2 @"=?E8 A #?D C= ;) ? ?C; A; # = ! !?= D8 8> ; ;4 = E B ;# 8>@?=A; 9 9#C8 # #B #) ? B B?=?C; >?C; !# #?D = < = =# =!#;C< =#!?; #B K; ! ; # ?= ?!B #;C#B (? B B #B; E ; >?C; C= ;# " =A E #B !C@@ ! =#B @?=! ; D8 K;?A; ! EB @B >?E B < = 8> ; =A C = = K; ! ; =A # C #B /;?# # =# 8 A ?=

2 & #C;= ?C; <? # C#>!C ' #B =" #?>?C; #>!?; >?C; @@ K# =A #B < = ; # ?= ?!KCD8 " !! ; 4 = @?= = =A #B & # # ?!#B 1 =A ?< 4 = E B 88 E #B 88@?= = =#8 8 9 A =@ # " >?C; A; @ ?C 8 ## ; =#?C; @?=! ; 9 # ?= B?K =A B?;#8>D> J D8 ! =A?!) ? #?! 88 CK?=!C@B ; ?8C# ?= < >D @@ K# D8 #?>?C; # @ ! @C; #B K;?# # =# ; 8 A ?= = # D8 B #B) ? ;=< =# 8 E = 8 D ;# ?!#B 1 =A ?< CK?=!?8 !?C= # ?= <? # A; L D8 #?#B A = ; 86 A?? = =@8 = # ?= ?!#B K ?K8 4 T

(# ?9#B K;?K?! 88 ?!#B ' = ?= E ?CD# =?# >?C; #> E 88 !? K?! #B # < ## ; #B # #B ; < >D = NC 88 ; = ! =#B 1 =A ?< ?!‖ *=A8 = #? @@?<K8 B # ?= ?!#B D # < = !?; ! @C; =A #B B KK = ! ?!#B ! 1 # ?= = #8 =A 8 # =A K @ 2 B B #B ;#? = # '8 B B = ?C; #? ? =B=?8 # ?; K; C @ EB @B < AB# !#C;D ?C; ?C=! ' #B # E ! A= #B KCD8 " A?? (? # < >D ?= E #B #B A = ; 88 @?=@C;; =@ = KK;?D # ?= ?!#B ‖ 1 # ?= *= #B < = #>< E !>; J5 @?=# =?E9 =@ ?!>?C; * # @ ; = K;?# @# ?= #?E ; C * =[88 ?C; @?= ; = 4 EB ;?!#B " >= FK; !9 ?= = >?C;) ; @ ?C 8 ## ; B A = C !C88 ! C; =@ (A= = = < ?!C #B & # # ?!#B 1 =A ?< ?!(@?#8 = D> ?C; K; ! =# > # K8 ! >?C; * * @ # >?C; * * # <? # BC<D8 <? # ! #B!C88 = ?D =# ; =# (@!CD! ; D #C; *0% /

+?CD8 ?!EB @B 8 ## ; !CD!@;> D> #B ?D 8 # !?8?E

d < 8#?=- 3C = D ;;>4 +?CA8 4 #B?884 &;;?884 J* ; @B 884 ;A>884 ?;#?=4 ; !C; 4 (?C#B ;8 = 4 * # ;4 &A <#?C=4 * =8 #BA?E4 0 =4)8 =@ ;= 4 $?;! ;4 % ;; 4 %E 8 4 0?#B =4 == = 8 4

+C= ?= 8 4 1 =#?; 4 0? ##4 1 =<?C;4 ;DC#B9 =?##4 % ;D #4) ; ;?! 4 &8KB = # =4 ?! 4 %?;9 KB @B =4 $?;; # ;4 8 =#>; ;A =>4 ' > =4 ;< @B 884 &4C#B =

(CD! ; D> #B ;?= !?88?E

J #8 = 4 ?Z (=@8 ;/ # C< /?8E ;#4 / #Z (@?##4 2 88 <(@?##4 = ; E A= E ?! 0?@B= E4 J < ?=#A?< ; ?!(" 8<?;8 + L ?>8 ?!1 8DC;= J !!?;D ?! ; A ;J Z ? ; ?!(#?= E?? J? + <K # ; ;? ?! #B # 8"%B?Z+C=D ;2 = #;C#B ; ?@"9 DC;= ; ?@"DC< ?!0 =A#?C= J ?C #?C= ?!#B # *8"(%C;= #?!0 > + $?;D ?! ?89 8? = 2 8 ?!0 < =A#?= C;; >?! 8 @"D ;;?=> + ;< @B 88 J? FE 88 2 C=9 =AB <4 / #; @" ?; >?!0 =A #?C= 5 J 8 = ?!)8 = A8 OC ?C @") ; =# + <KD 88 C@B9 =D; @"4 J?H <KD 88 ;; @"4 J?)?; ?= ?! &<D? + ; " = + C= 2 H ‖ +?C 88 ?!) ;#B9 8 = 8 ; ?!K7 8" < 8#?C= 2 88 <?89 B?E= 4 B ;8 ; 8" = %B?< + ;C<<?= ?! @@ ;#?C= 4 ' F7 ;#BDC#B=?## ?! 1=?F Z ‖ AC!!?A4) ?; ?= + ;=?## ?! <?##

(CD @;> D> #B ?<< ! ?= ; !?; <AB !?88?E

J?B= ') ?Z (# ;8 =A ?D ;# (< #B J !!8 #@B ; 8 F) ?; ?C=4 2 ' < AA = J < (< #B4 J? = ;!?= J?B= ? !E 88 J C 4 + (K =! 4) 4 / #; @" 2 88 @ < = 8 4 J? &C ;# %< 8#?= 4 / #; @" (# =4 J?B= * *C; E 1 == >4 8 F (K ## '8 J?B= ??; 4 8 F C= =AB < 2 88 <?! 2 885 ?@B; = 4) ?7 (<>#B J * *C;; >4 J Z (<?88 ## 2 88 <?@B; = J < (# E ;#4 2 ; " = / # C;L ?@B4 J? ? 4 J ?Z (@?##4 ?‖T7 8 = E 2 8L 8 @ J? ?!E 884) ?) ?; ?= J 1 == = CAB ;?C= 2 88 < 8#?= J?B= = ;!?= 2 H ## J) ?; ?= J ?Z + ;><K8

% & # =A ?! #B & # # ? A E ;; = #?; ; = #B & ;8 ?! ;A>8 #?! W ?= C@B KCD8 " ;< B < > B KK = #? ! ? ; = *=@ @ B ;< S4 ! W ?= => ;< D 8?=A =A #? K; # K ;!?= %B & # # @8 ;# #B # #B ! K ;!?= B 88 D K > ?!K K;>@ K‖?!

+ . -+7 * Q S

%! !?;! !#; DC# ?= ?!#B ; < <?=A!# #B E !# ;=@ !8 >;

% & J # =A ?! #B? & # # @?= ; =A B?E = 9 @ ! ;> # !?;! @C; =A #B KCD8 " K @ = ! #> ?! #B 1 =A ?< %B # #B ! K ;# ?! # #B # 8> CK?= #B *; B D KC# = K? #C; ?! + ! =@ 4 = B =A XE #B ; A ; #? !? C # =

= @ ! ;> ' E?;" ` ; ; ' = ' KK? <# ' %B #' ' #B ' 1 K ;' ?!' #B ' < A W = ' ?!' ;< ' =' #B ' #8 ' ?!' (# ;8 =A' B 88' 8> ;' #?' J?B=' = ;!?= ' ?!' +?EB 88' ?;' B ' ?; ;' #B ' =C<D ;' = ' NC =# # ' ?!' !?C;' #B?E! = ' <C " ## ' E #B9' = 8 ; ' = ' < #@B' @?=!?;< 7' = ' B== ; ' D ;; 8 ' ?!' K?= ;4' = ' BC= ; ' @B !#' ?!' 88' = ' = ' #B?C! = ' K>@" ' #?' D ' 1 K ' ' ' < A W = ' =' #B ' #?C= ' ?!' #88 A?E' D ' #B ' K ;!?= 4' = ' !?;' #B ' C! ' < =L # ?= ' =' #B ' ?; = =@ ' ; @# ' #B ; = =#4' +?' %D ;!?;' =' ! ; ;' K;?! @C# ?= ' ?!' #B ' A?? ' = ' 8 E D8 ' 8 A= ' !?; ') ' ?; ;' = ' E ;; = 4' = ' FK; ! 8>' ; NC ; ' = ' ?<< = ' %B #' #B ' ' J?B=' = ;!?= ' ?!' +?EB 88' ;' #B ' K ;!?= ' EB?' B 88' B KK =' #?' ; @ ' #B ' ' ;< ' = ' <<CL = # ?=' D ' B ' ?; ;' !# ;' fY' ! < =' ; ' ! @C; ' =' #B ' ' #?C= ' ?!') 8 A?E4' B 88' E #B' 88' @?= L = =#' 88 A =@ ' + #; D=# ' = ' + 8> ;' #B ' =C<L D ; ' = ' K;?K?;# ?= ' #B ;?!' ;!# ;' > '#?' #B ' K ;!?= ' !# ;' = < ' %?' D ' 1 K ' #' #B ' ! ; 88' K8 @ 4' = ' !?;' #B ' ; (@ ' C! ' !?88?E =A' W' %B ' =C<D ;' Q NC =# #>' ?!' #B; ' BC= ; ' ?!' #B ' ! ' <C " #' E #B' = 8 ; ' = ' < #@B' @?' !?;< ' ! F' D ;; 88 ' ?!' K?C ;4' ! F' @B !#' ?!' '' = ' = ' BC=L ; ' K>@" ' #?' ?D ;#' / ! 8 >' 8A ' ?!' / ! 8 >' ?;' =>' B =A' B ' ?; ;' #?' D ' " K ' #' #B ' #?' ' = ' #B ' C; @# ?= ' ?!' 1>88' C=9' =AB < ' = ' ;; @"4' *# <' %B #' !?C;' BC= ; ' <C " #' E #B' = ?8 ; ' = ' < #@B' @?=!?;< ' AB#' D ; 88 ' ?!' K?C ;4' AB#' @B #' ?!' D 88' = ' = ' BC= ; ' K>@" ' D ' 8> ; ' #?' / # ;!?= ' K;? !#' = ' J?B=' C ' !#A ' ?!' (#; =9' ; E ;' ?;' =>' B =A' #B ;' ?; ;' #?' D ' " K ' #' (#; =; E ;' !?;' #B ' C! ' ?!' #B ' B>; ' ?!' 2 A#?C= 4' *# <' %B #' #B; ' BC= ; ' < ' " #' E #B' = L 8 ; ' = ' < #@B' @?=!?;< ' (F' D ;; 8 ' ?!' K?C ;' F' @B !#' ?!' D 88' = ' = ' BC= ; ' K>@" ' D ' 8> ; ' #?' J?B=' 88 = ;' # E ;#' @8 ;"' = ') ?; ?=' 8A ' ?!' 1 ;"@C D; AB#' ?;' =>' B =A' #B ;' ?; ;' %?' D ' 1 K ' #' #B ' ! ' DC;AB' !?;' #B ' C ' ?!' #B ' # E ;#;>' ?!' 1 ;"C D; AB#' *# <' %B #' #B; ' W BC= ; ' <C " #' E #B' = 8 ; ' = ' < #@B' @?=L !?;< ' ! F' ;; 88 ' ?!' K?E ;' = ' ! F' @B !#' ?!' 88' D ' + 8> ; ' #?' 2 88 <' ; A' /;? #4' 8 FL = ;' @ 88 =' = ' ?D ;#' +C=@ =!?=' 8A ' ?!' +C<D ;#?C=' ?;' =>' B =A' ?; ;' %?' D ' 1 KL ' #' #B ' DC;AB' ?!' +C<D ;#?C=' !?;' #B ' C ' ?!' #B ' B>; ' ?!' +C<D ;#?C=4' *# <' %B #' !> ' BC= ; ' <C " #' E #B' = 8 ; ' = ' < #@B' @?=!?;< 4' ! !# =' D ;; 88 ' ?!' K?E ;' = ' ! !# =' @8 !#' ?!' 88' D ' + 8> ; ' #?' ?D ;#' <KD 88' =' *= ; ; 4' ?;' =>' ?#B ;' B =A' #B ' & ;8 ' ?!' ;A> ' ' ?; ;4' #?' D ' 1 K#' #' #B ' #?C= ' ?!' *= ; ; ' !?;' #B ' C ' ?!

#B ' B>; ' ?!' ;A> ' 4' = ' #B ' < # =A' ?!' #B ' & L # # ' +? ' E ;; = ' = ' ; NC ; ' #B ' ' K ;!?= ' B ; D>' KK? =# ' #?' ; @ ' #B ' ' ;< ' = ' <C= # ?=' #?' ; ' = ' 1 K' #?A #B ;' !C@B' =C<L D ; ' ?!' #B ' 8 A ' = ' ! =@ D8 ' < =' =' = ' D?C#' #B ' ' ; F ' #?C= ' = ' DC;AB ' EB ;' #B ' < =' ' #?' D ' 1 K#' =' < == ;' !?;! ' ' < >' D ' !C!! @ =#' !?;' @?= > =A' #B ' ! < =' ! 8>' !;?<')8 A?E' #?' K ' ' ; F ' #?C= ' = ' DC;AB ' = ' !?;' 1 K =A' #B <' @C; 8>' #B ; !# ;' !?;' #B ' C ' D? ' < =# ?= #' = ' #B #' #B ' ' K ;!?= ' A ' #B ;' ; @ K#' !?;' !C@B' ;< ' = ' <C= # ?=' ' #B >' B 88' ?' ; @ ' #?' #B ' 1 K ; ' ?!' #B ' KCD8 @"' ;< ' #')8 A?E4' = ' # " ' ; @ K#' !;?<' #B ' ; F ' ?<< = ; ' E #B =' #B ' ' ; 88' !8 >; ' = ' C; @# ?= ' !?;' !C@B' =C<D ; ' = ' K;?K?;9' # ?= ' ?!' #B ' ' ;< ' = ' <C= # ?=' ' B !# D ' A =' ?C#' !;?<' #>; ' #?' #>< ' !?;' #B ' C! ' D? ' < =# ?=

% &' < # =A' ?C;= ' # 88' C= >' #' # =' 4' '@8?@"

& + * ') ' S P7' ;@B'

% &' # =A' ?!' #B ' & # # ' +? ' A ' ?; ;' = ' ;; =@' E ;; = ' #?' #B ' < A #; # ' ?!' & =DC;AB' #?' NC ;# ;' #E? & ' #E?' ; A < =# ' C= ;' #B ' ?<< = ' ?!' < ?;' A 9' A < =#' =' ;; 88 ' ?!' 4K?= ;' #B ;#>' @B # ' ?!4' 88' = !> ' BC= ; ' K>@" ' D ' + 8> ; ' #?' C; K;? #' ?!' ;4' ?;' =>' B =A' B ' ?; ;' #?' D ' 1 K ' #' #B ' D;CAB' ?!' ;' !?;' #B ' C! ' ?!' #B ' !# >; ' ?!' ;

=)*'

&+* ') SV ;@B G

#B ;; @ K# !?;EB @B #B >; #?B =!E ; D8 =?# F@ =A #E?BC= ; <C " # 4 ?= BC=9 ; K @" !?C;D ;; 8 ?! K?E ;!?C;@B !# ?! 88 E #B = ?8 ; = < #@B @?=!?;< = #B # #B @?<K = " K E #@B = E ; !?; ! @C; # ?! #B #?C= = !?; ! @C; # ?! EB # ;< = ?#B ; <C= # ?= B 88 D KC## = #?; #B ; D>#B = # =A?!J &# # 4 = KK?>=# #B ?; ; #? ?=# =?E!?;#B K @ ?! <?= #B !# ;#B # B ; ?!

% &< # =A?!#B &# # +? A E ;; = #? (/ #; @" C;; > ; @ ;#? + K #@B !C@B @# K;?@8 < # ?= = KCD8 @" ?; ; B B4 D 9 8> ; #? B <D>#B 8?; K; =#4 ?;D>#B @8 ;" ?!#B < # =A = #? KC;! =><?= >#B # B 88 D = @ ! ;>!?;#B # KC;K?!

T: ** . < -& - Q *+ - 6 + 0

% &< # =A ?C;= #? # = @8?@" #?L <?;;?E

&+* ') [M ;@B G

% &* ;NC ?! +?CA8 K;?# # #B # #B @ 88 =A ?!#B +C" ?! 3C = D ;;>?; =>?#B ; # <K?; 86 8?; D !?;B << AB#=?#K; C A B <?!B ; AB# ?!K; @ =@>4 = #B ! ; # ! # = 88 / ;8 # = ? =!?; <#?B A; # ! 8 = A = B K;?# #L # ?= = E; # =A#?D ; @?;

%& +F +,'+0 <*+ , ,+* <* - . -

% &< # =A ?C;= #? # = @8?@" #?9 =? %?E

% &< # =A?!#B &# # +? A E ;; = #? ?; A = ; 88 1>#?@C D # +;C<< #B;?CAB #B 1 =A ?< !?; 8 =A < =#?9 @;C # !?C; ; A < =# ?! !??# = ?= ?! +; 9 A??= C= ; B ?<< =

M 2*. *+ *-&,+* &+* *6 00

% &< # =A?!#B &# # +? A ?; ; = E ;; = #? #B 8 ; ?! +C= C!8! #?! ;@B #B B?C! ?!#B 8 ; ?! C' = = ; < ' =!?; B?;! = ; <4 = #? ! @C; #B ! < C=# 88 !C; ; ?; ;

% &< # =A?!#B &# # +? A ?; ; = E ;; = #? (; J?B= < >!B ; !! + KC# ?! =A#?C= #? ! ;@B #B B?C! ?!) ;8 #?C= !?; B?;! = ; <4 = #?! @C; #B ! < =C=9 # 8!C;#B ; ?; ;

M0: 6 .+ 8+*3 H * -(+<*?& ' +, 3+*.+ 0

*% ?; ; D>#B < # =A?!#B &# # 4 #B # CK?=#B +C" ?!)?; ?C= D # =A?!K ;8 > ?;) = ; 8 H1>A E ;; = #? / ;8 >E #B B <!;?<#><#?#><B B 88! @C! 4 = #?; K?;# #?#B < # =A

<: ** .+ 5 -* H 0 +6 5 0 6 0

% &< # =A?!#B &# # +? A E ;; = #? ?; A = ; 88 1>#?@C D # +;C<< #B;?CAB #B 1 =A ?< !?; 8 =A < =#?9 @;C # !?C; ; A < =# ?! !??# = ?= ?! +; 9 A??= C= ; B ?<< =

%&)+6 6, + 0* .+ %&+6 ? *+,) ,+* I+* &/ * 7 -(<* H ** . +* *3 +*0

% &< # =A?!#B &# # B 9 5 =A B ; = ?= ; #B K?;# ?!#B ?<< ## !?; @?=9 #; ;# &8 @# ?= 4 D ; =A #B # #B >B =A B ; = ?= ; #B @ ! #E F# (;) ?;A (C## ?!8A?E= = %B?< (# E ;#?!?8#= = =# #B &8 @# ?= ?!#B D;CAB ?! ?;#BD ;E @" *# #B ;?K = ?= #B # C8#= 8 @# D>#B K8C; 8 # ?!B D 8 DC;A !8 = #B # #B ;!?; B ?CAB# #?D K; ! ;; #?(I) ?;A (C## %B & # # +? KK;? #B ; K?;# = =# ;9 K?= #B ; C#B?; # #B ;#?

I+6 + +,&)+6H 6 ,+* , 0 &3+7 * 6

% &< # =A + K;?@ #?A = @B< <L D ; B 0 # ?!#B @?<< ## !?; ! #8 =A #B A?L ;=< =#4 = D>K8C; 8 # ?! ?# #B K ;!?= !# ;= < E ; 8 @# #?D #B @?<< ## W!?; #B ?D 8 # %B * ;NC ?! #B?884 %B & ;8 ?! ;A>88 4 ; E!C; 4 (C#B ;8 = 4[= 0?#B =4 %B @?C=# ?! % ;D #4 %B 0?; ; ;?* 8 884 !?; #B ;?= 4 %B 8 ; ?! ;< #?C= (/ #; @" ?< ?! /?8E ;# (2 I (@?## ?! ;L =4 %B 8 ; ?! 8 ; (J < * ?=#A?< >?! (" 8<?;8 %B 8 ; ?!) ; =# #B 8 ; ?! / #8 ;4 = %B?< +C=D ;?!) ; =A 4 = !?; #B C;9 ;?E 4 (J?B= 88 (J?B= + 8;><K8 (B ;8 8"@#4 2 P *8 < 8#?C=4 J < !!8 #@B ; J?B= = ;!?= !?;)8 A?E ?D ;# (< #B = J?B= J C ; !?; ; = A; #B # #B 8?; /; =# D !CK ;=C< ; ;

6 "%63%7%33--'
"7'31-' - .@
/-T-!! . -73,
"6316+ 8,@
3" . -'7
"6' 3-,3"87@
K ═

% &' & # # ' +? '=?< = # ' = ' KK?>=#'#B '8?; '
C#B ='%B '8 ; '?!' ?'? =' = ' ⅈJ?B=' C;L
; >' ' ' ?<< ## '!?;' F < = =A'J < ' C=# ;'
/? #' = '!C@B'K ;!?= ' ' ; '=?E'*<K; ?= 'D'
?; ;'?!'#B ' < #=A' = '#?' ?A=?! 'CK?='#B '
&<D W 88< =#'?!'#B ' C #?< '?!! @'?!'/; #?C=9'
K == ' C8'#?' 88'#B 'K ;8DB '@B ;A '#B ; = B#'
D !?;'#B <'!?;'#B #' !! @#' = '#?' A 'E ;; = '
!?;' ; 8 =A' =>'?!'#B ' 'K; !?= ; ' ?' *<L
K; ?= '?;'=?#' '#B >' '@ C ' = '#?' K?;#

% &' # =A'?!'#B '& # # '?!'#B '1 =A ?< '
# " =A'#?'#B ;' @?= ; # ?= '#B #'#B 'K;?# # =#'
'A ?=4 = '#B 'KCD'@"'K @'?!'#B '1 =A ?< '
; ' #'#B '#>< ' =' < = =#' =A ;4 #B 'K K #'
D =A' =' =< ' ='A; #'=C<D ; '=#'#B '1 =A ?< '
?!'*; 8 = 4 = '#B #'#B ;' C #'A;?C= '#?' KK; L
B = ' = '! ;4 =@ !'#B >'K; '4 #B #'#B >' ='
@?= C=@# ?='E #B'?#B ;'&= < '#?'?C;' 8 A ?='
= 'K @'< >' ## <K#'#?'*= '#B '1 ?< 4
= ' #' D =A' = BK =! D8>'= @ ! #>'#B #' ='#B '
#>< '?!'@?<<?=' =A ;'#B 'CD @#'?!'#B '= # ?='
D 'KC#' ='K? #C; '?!'+ ! =@ 4 !?;' ; ! # =A' =>'
!?;< A=' *= ! ?= ' = '!CKK; ! =A' =>' =# # = '
@?<<?# ?='#B #' < >' ;;> '%B ;!?;'#B '& # # '
+? ' ?<< = ' = '; NC ; '#B ' '# 'B?;! ' = '
!??#' ='#B ' ; '' B>; ' !# ;' < =# < 4 @@?; L
=A'#?'#B 'K; ! 8#& # D8 B< =#D>'8 E4#?' ; K ;'
#?'#B 'K8 @ '!?88?E =A4!C!! @ =#8>' ;< ' = 'K;?9'
> 4 = '#B ;'#?' = W ?CW C= ;'k ' ?<L
< = '?!'#B '; K @# ' ?'?= ' '?!'!??#' = ' K7'
= '?!'B?;! ' !# ;' = < ' '%B '; !! # ' A 9'
< B#?!'#B '#?C=' ?!'& =DC;AB4 #'#B '8 =" '?!'
0 #B'CK?='#B '! !# =' + >'?!' K;>88'= F#'%B '
< 8 # '; < =#'?!'#B ' B>; '?!'& =DC;AB4 #'
C= '<??;4 = '#B '< 8 # '#;??K'?!'B?;!'?!'#B '
' B>; 4 #'#B '! =" '?!'0 #B'#B ' '+ >4%B '
! # '#;??K' = '; A < =#?!'#B ' B>; '?!' 9'
=A#?C=' #' #?C=' <??;' #B ' '+ >4 %B '
< ! # '; A < =#' = '#;??K'?!'#B ' B>; '?!' ;L
E @"' #' ; '<??;'#B ' '+ >4 %B '#E?' A 9'
< =#' = '#;??K'?!'#B ' B>; '?!' ?FDC;AB' = '
(8" ;"4 #' 0 =#?C= A '?;' <??;' #B '
%B '; A < =#' = '#;??K'?!'#B ' B>; '?!'+C<!; '
#'0?@B ;B; A 4 = ;' #B '#?C='?!'+C<!; '#B '
'+ >4%B '= 8 # '#;??K'?!'#B ' B>; '?!'2 A9'
#?C= ' #')8 =8C@ 4 = '#B '#;??K'?!'#B ' # E ;#; '
?!'1 ;"@C D; AB#4 # ;! =E?;'"'#B ' '+ >'%B '
#B; '< ! # '#;?CK'?!'#B ' B>; '?!' ;' '!?88?E '
'%B '#;??K'!?;' @"' #' >B?!4 %B '#;?CK'
!?;'1>8 ⅈ #'J '#?C='?!' ;' = '#B '#;?CK'!?;' C=9'
=AB <' #'*; = '#B ' '+ >4%B '#B; '< 8 # '
#;?KK '?!'#B 4 B>; '?!'0 = ;"' '!?88?E 4 '%B '
#;?KK'C= ;'# ' ?<<< '?!'#B '+C" '?!' < 89'
#?C=' #'J '#?C=' ?!' < 8#?C=4 %B '#;?CK' C= ;'
#B ' ?<< = '?!'#B ' ;NC '?!'+?CA8 ' #'#B '
#?C= '?!'0 = ;"4 = '#B '#;??K' C= ;' . ' ?<9'
= = '?!'! '8?; ' ;< @B ' #')8 A?E'#B ' '
+ >4%B '#;??K'?!'#B ' B>%'?!' =!; E' #' =L
!; E' <??;'#B ' '+ >4 %B '< 8 # ' A < =#?!'
#B ' B>; '?!' ;A>8 4 +C<D ;#?C='Q C# ' '!?8L
8?E ' '%B ! ' ?<K = '?C#; @" 'D>'#B ' B>;
')' [

M%R ** .' +'
1 * '+,'
*' ' '
&'1 * '+,
/ ;#B.

% &' # =A'?!'#B '& # # '+? 'A 'E ;; = '
#?' B ;8 ' '?!' ;;'B ; # B8'1 K ;' = '
)" <?C,'?!'#B ' #8'?!'(# ;8 ='#?' 88?E' C@B'
?; = ;>'! ; =#' ' B 88'B '; NC ; 'D 'J < '
& ;8 '?!' / ;#B'#?' ## = 'B <' = 'B ' >'%B '
' ! ; =#' 88E > '@?=# =?E ##A' E #B ='#B '
'@ #8 ' = ' #'=?'#><'A? =A'!C;#B'#B ;?!' = '
8>" E > '#?' 88?E'+;C<<?= '?!' @B =>4 =L
; E'1 ;;' ⅈ%B?< ' ; @B#?C= ') ?;A '+;C<L
<?= '?!' 8 ;' = 'J?B='+;C<<?= '8 # '; @ ;'
#?'B ' @@ !'#?' = ' K " 'E #B'#B '* '& ;8 '?!'
/ ;#B'#B '8 < ='D =A' 8E > ' ='K; ! =@ '?!'#B '
?<< = =A'?!! @ ;'?!'#B 'A ; !?= '!?;'#B '#><

M2*. *'
' . '
< / -'
<?= >-

+& &+'#B #'#B 'A = ; 88'; @ ;'D; =A' ='
J '= F#' (;C=#'?!'#B '< #=A' = ' @?<K#'?!'
EB #'KCD8@"'<?= >' ' ='#B ;' B = ' = '?!'EB #'
'; #=A' = 'D 'EB?<

' (! 8 F! 0 =A #? ##?!')8 B# ;; =' = '
@?8!?= '?!!188 @=8#;>' K# = 4 = ' 8A 'J < '
;?C=4 K# ='?!' #B '#?C='?!' (#; = ' ?<K =>4
%B '8 ; '?!' 8 ' K# ='?!' #B '#;?CK' (! 8 F!
?K '?!' ;! '8 # == =# = ')8 !'?!
(C@B ' ? #4 * '#B ' B>; '?!'0 =8 #BA?E' = '
/ D8 '%B '8?; ' ; ;?! ' ?8'?!'#B '< 8 # ' A L
< =#4 %B '8 ; '?!' @@ ;#?C=' +;C<<?= '8 [
?8' %B '8 ; '?!' 0 =A #?C=' ?; '%B?< '
< 8#?='?!' ?AB ' 0 E!D= '?!' < 9
<C; ' C! ''?!'(8 KK ;! 8 ' =
#@B'?!')8 B' K# ='%B '8?; '%?;KB @B =' K9'
#& ='?!'#B '#;?CK' + @" ?='?!' ;#; '8 9
== =#4 J < ' < 8#?C=' ?!' =A?C;' ?< #4
* '#B ' B>; ('?!'$>! ' = ' 1 <?'%B '& ;8 '?!'
?;#?C=' ?88'?!'#B 'E # A < =#?!9!??#
+? ;A8 '?!' (#; !B =>' # == =# ?884 8 F!
(K ## 8'?!'0 E@B # ?;4 J < '(" ='?!')# =A '
#?CB'?!'*=@B ;= ' ?!'(K =@ ;9
! 8 ' ?!'0 ! ? '>?! = ' ;# @"
?!' 8; <' K# = 4 .8 ;8 ' 8" # K# ='?!'
#B 'E # ;='#; CK'?!'B?;! ' ?=# #B'?!
!?; '8 # < =#4 ?< #4
%B '< # ;'?!' C;AB8 ' ? '?!'#B '& # ;=')'
< =#4 (! + ' <?#8 !?8#4 ?B; # +?CA8 '?!'
1 ;"= !' ?;4 2 # ?='?!' #B < '8 ;
?!' 8D < '>?7 >'?!' CAB# B
>?7 ?!' = " '>?!Q #?C='?!
1 == 8 ' K# = 4 %B '< # ;'?!' 8 88' KL
# ='?!'J '& # ;='#;?CK'?!'B?;! 4 ?!' C@B9
# ;< ;= '8 # == =#4 ?;= #4
* '#B ' B>; '?!' / ;#B4 %B ' 8' '?!' #B? '
?8# ?!'#B '& # ;=' A < =#?!'!??#4 !?;< ;8>'
?<< = 'D>'B <'%B '& ;8 '?!' ; 8D = '
8 7 ?84J < ' < >'?!' <! ' ?;4
%B '8?; ' ?88?' K# ='?!'#B '& # ;='
#;?CK'%B '8?; ' C#B =' ?88?= 8'?!'#B 'E !8 <'
A < =# !?;< ;8>' ?<< = 'D>'#B '& ;8 '?!'
/ ;#B4 %B '8 ; '?!' 2 >< '>?!8 7 ?884 ?D ;#
(# E ;#?!' ; ?; 8@B' ?;4 +;C<<?=
?!' ?<; ' 0 = >'?!'& 8@"4 %B '8 ;
?!'0 > ' 8 KB =#?!' ?= ' =
'; '?!'(B ;A ;#?C=' K# = '%B 'B ; '?!')8 C9'
A ' K# ='?!'#B '#;?CK4 *='#B 'E # ;='K ;#?!'
#B 'B>; 4 C< '?!' ;A # '8 # == =#
?< #4 = '?; = '#B ' ' ?88'?!'
!??# = '@ K# = '?!'B?;! 4 #?'# " 'CK?='#B <'#B '
?<< = '?!'#B ' '; A < =#' = '#;?CK'; K @L
'E #B'K?E ;'#?'#B ' ?'?= ' '#?' = <'#B ;'?C= '
< ?;'EB ;'#B >' ; '=?#= < 'D>'#B ' @#4?;'D =A''
= < ' B 88 =?# @@ K#' = '#B # D?#B' ?88?= 88'
= ' K# = '?!'B?;! 4 B '#B '! < 'K?E ;'?!'
=?< = # =A'#B ;' =! ; ?;'?!! @ ;'=?#= < 'D>'#B '
@#4 EB @B'E 'A; =# '#?'#B <'D>' @#' = '*= #;C@9'
?= '?!'DC'K; '@?C=@ 4 = '#' 'B ; D>'+ ;9'
'#B # ''#B 'K ;!?= 'EB?' ;'B ; D>'=?< = #
?!! @ ;' ?!'#B '< 8 # 4 8D # #B >' B?C8 '+ @8 = '
#?' @@ K#> # #B >' B 88 D 'B?8 ='#?'D; =A'#?A L
#B ;'#?'#B '!?;! 'K8 @ '?!'; = ?CW#B !'K9'
K?>=# '#?'D 'C= ;'#B ;' ?<< = 4 = '#B # #B >
B 88 8!?' D '8> D8 '#?'#B 'K = 8# 'KK?=# 'D>'
8 E'!?;'%'; !C =A'#?' @@ K# = '#B '& # # '+?'
?; ='#B ' ?8#'?!'!??# C ' K# = '?!'B?;!';L
K @# '?;' ='#B ;' D! =@ '#B '= F# ?<< = =A'
?!! @ ;4 #?' 1 K' #?A #B ;'! ' K @'?!' F' + > '
#B ' '; A < =#' = '#;??K 4 EB ='#B >' (B 88
= ?CW' # JY'!?;!'K8 @ ' = ' C; =A'#B #
#>< '#?' F ;@!'#B <' = '#B ='#?' !< !'#B <4
#B >'D =A' 8E > ' =' ; = 'CK?=' ;#!= =#
0!;?<'K ' ?8# ?!'!??# ?;' K# ='?!'B?;! 4 ?;'#B '
= F# ?<< = =A'?!! @ ;4 #?' ?< '#?A #B ;' A ='
#?'#B ' '; K @# 'K8 @ '?!' = ?CW E #B'
#C =#>' > ' K; !? ' = ' #B ;'#?' ?=# =KE'
#B ;'!K;'#B ' K @'?!'#C =#>' + > '?;'#?' < ;@B'
8!EB ;'E #B ='#B '1 =A ?<4 '#B >' B 88; @ '
?; ;'!;?<'#B ' '?!! @ ;' = ' # ' B ; D>'
+ @ ; !!'#B # K ' D! =#'!;?<'#B ' = ?CW ='
#B ' C=@#C; '(B 88 D 'B?8 =' ' D! =#'!;?='#B '
B? # Q K;?@ ' A = # @@?; =A8>' = '#?'K '
='K7K'<8 # '<>'D4< '#B '<?; '!! @#C 88
%B '& # # '+?'=?< = # = ' KK?>=#K'K ;! = '
!# = < '#?'D '?<< ! ?= ; '!?;'?; ; =A'#B '
<8 # '='#B '! ; 88 B>; 'E #B'#B ' ?88'8 7 ?8# 4
< ?;' = ' K# = '?!'!??# = '#B ' K# = '8 9'
= =# ' = ' ?;= # '?!'B?;! ' W $ '#B '*B>; '
?!' & =DC;AB' %B ' @?C=# ?!' % ;D # (! J?B='
; '?!' ED>#B' (! J < ' $?C8 '?!' ?'=A9'
#?#< '(! J < ' @B ; ?= '?!'(< #?C=' (! 2 I'
B;; >' (! ;"' !' (7 ?D ;# ; '%B '8 ; '
?!' < #?C='%B '8 ; '?!' @@ ;#? <' ; A'%B '
8 ; '?!'/C<KB ; #?C=' ! + 7 +C=<C; '?!' C;9'
; B 884 = ' 7 2 88 <' +?CA8 '?!' 4 %B '
+C#@B ''?!' C " 8 CAB' 'A '?!'#B ' ; A 88 # '
?!'+ 8" #B' !?;'K '#>< ' +C#@B '?!'0 CL
; 8 'B ;' 88A '!?;'+C =A #?C= '!?;'#B '#>< 4
$ '#B ' B>; '?!' =A#?C='%B '8?; ' # ;4#B '
8?; ' 8B =4#B '8 ; '?!'(# = #?C=4 %B '8 ; '
?!' ;< !#?C= 4 %B '8 ; '?!'0 < =A#?C= 4 %B '
B ; '?!'/; #?C=A; =A '7 KDC;=?!' = 9'
#?C##4 ?D ;# < 8#?=' ?!' /; ! ;= < =4 + '
KDC;='?!' C<D '(!J?D='0 C ;'?!'$?C=# =9'
B 8' < 8#?C='?!' >= E ;'(!J?B=' 88
?!'+C=A8 ' KDC;='?!'(< #?C=4 (!
/ #; @"' KDC;='?!' 8@"@ #8 ' (> ! ;!
?!'#B #' 8"4 = '#B '+C#@B '?!'0 C ; 8 'B ;'
8A '!?;'0 =A#?C=4 (!J?B=' ; '?!' E9'
D>#D' (!J?B=' (=@8 ;'?!'0?@B = 4 %B '8 ; '?!'
)?! !??; 4 %B '8 ; '?!' + ;8#?C=' %B '8 ; '?!'
C B8 E' ;@B D 8 ' C;; >' ?!' (K?#4 $ '#B '!
B>; '?!' ;E @"'%B '8?; ' ;@ ; 4 %B '8?; ' ;9'
=A#?C=4 (! J < ' +?=' ?!' E#?C=' (! ?D ;#
(# E ;#?!' J8 =D ="4 (! / # T@"' C< '?!'0C< 9'
=' %B '8 ; '?!'0 <D ;#?C=4 %B '8 ; '?!' ?; 9'
#?C='%B '8 ; '?!'* =A#?C= 4 %B '8 ; '?!'%?!#'
/ #; @"' 2 ; 8 E'?!' ;; B CAB4 J < ' C< '?!'
!!8 !' 2 H C= '?!'); =8 E9@ #8 4 J?B=' 2 #9'
='?!'J ; =9! 8 ' (!J?B=' 88'?!' C8 @ <DC '
/; =A8 '?!'); ="=?E4 7J < '+ '?!'
?8 =A"=?E 4) ?;A ' C< '?!' ! = =4 = '
J?B=' C< '>?!' 2#?C=4 $ '#B ' B>; '?!

?FDC;AB‴ = ' (8" ;"¢ %B '8?; 'J DC;AB¢ 2 l' &88 ?# ?i' (#?De¢ (‖ J?B=' (@?# ?i' =?@C<¢ (‖ 2 ' (@?# >?‖ ?i' ; =¢) ?'A ' /; =A8 ' ?i' %?;E?? 9' 8 ¢ (‖ / #; @"' * C; ?@Ƀ ?i' C<8? =¢ & L %;?NCB =¢ / #; @"' * C; ?@Ƀ ?i' C<8? =¢ & L 8 FǄ) ?; ?=' ?i' & ;8 #?C=' ?A ;') ?; ?=' ?i' +C=; A # $ '#B ' E ;#; ' ?i' 1 ;"@C D; AB#

@B =' %B '8 ; ' ?i' +C= "›' J < ' + 8;›<K8 ' ?i' +C=; A # $ '#B ' E ;#; ' ?i' 1 ;"@C D; AB# 8 FǄ) ?; ?=' ?i' & ;8 #?C=' ?A ;') ?; ?=' ?i' &88 ?# ?i' (#?De¢ (‖ J?B=' (@?# ?i' =?@C<¢ (‖ 2 ' (@?# >?‖ ?i' ; =¢) ?'A ' /; =A8 ' ?i' %?;E?? 9' %;?NCB =¢ / #; @"' * C; ?@Ƀ ?i' C<8? =¢ & L E ;' FE 88 ?i' ' , + ‖@C ' ?@Ƀ ?i' ; 9' E 88¢ ?D ;'# ;?C=' ?i' @ ;i8?C#B¢ = ; E' ;;?=' ?i' 1 ; C@B#; ' 2 88 <') ?; ?=' ?i' ; A¢ J?B=' &E ;'# ?i' C ' ?@"¢ (<C 8 FE 88 ?i' E8 >¢ J?B=' @" ' ?i' / 8A?C=¢ J?B=' 8i?B ' ?i' ?;9' i @"¢ 8 F = ;' ;?C=' ?i' 1 <K8 #?C=' $ '#B ' B>; ' ?i' ;' * '#B ' 88 ;>' ?i' ;; @"' %B ' 8 ; ' B>; ' ?i' ;' * '#B ' 88 ;>' ?i' ;; @"' %B ' 8 ; ' ?i' ;8#?C=' J?B=' ‖ 8 F = ;' >?‖ ?i' +;C< 9' ?i' ;8#?C=' J?B=' ‖ 8 F = ;' >?‖ ?i' +;C< 9' ; ?@B; ' 3C =#=' 1 == >' 8 ;' ?i' +;C< 88 =' ?> '?i'%;?@B; A' $;AC ' ‖A DD?=' ?i' 1=?@" ?88 =' %B?< '1 == >'?i') ; =A ¢ 8 FǄ $;AC1?= ' ?i' 1 88" ;; =¢ J?B=' 2 B #i??; ' ?i' 8 ;NCB =¢ J < ' ; EiC; '?i' EE?;"¢ 3C =L # =' @ 8 =' ?i') ; < #¢ Q‴ ‖J?B=' $;AC ?= '?i' ;@8 C@B = =¢ $ '#B ' ' ; '?i' 1>8 '%B ' 8?; ' ; @B#?=¢ #B ' 8 ; ?i' i =?@" 2 88 <' & ?@B; =' ?i' @B 8#; ' $;8 '?i' C;=#9 i 8 ' $C ' ;#?C=' ?i' ? iD ?i' <#?C=' 8 ;' =>?C=A ;' H 8 FǄ ?i' ?AB 88 $;NCB ;'?i') 889 < ; @;?i# 0?A =' ?i' 0?A = B 8< ; ' ?i' /?8NCB ;=¢ C=A?' <KD 88 >?Ǆ ?i' B ' E ;#; ' ?i' 1 ;"@C D; AB# 8 FǄ)?; ?=' ?i' & ;8 #?C=' ?A ;') ?; ?=' ?i' +C=; A # $ '#B ' E ;#; ' ?i' 1 ;"@C D; AB# #B ;K8 @ ¢ + ' ; E iC; ' ?i' +;C<i?Ь ¢ + ' ; E iC; ' ?i' ;NCB ;; ¢ B ;8 ' C= =A9' B ¢< ; ' ?i' /?8NCB ;=¢ C=A?' <KD 88 >?Ǆ ?i' B ' E ;#; ' ?i' 1 ;"@C D; AB# #B@ ;'# ?i' += <#?=¢ B < ' ?i' +;C=A =' ?8 =' <K8F 88 ?i' 8>#BiE?? ¢ $ ' X 8 = 8 ?8 =' <K8F 88 ?i' 8>#BiE?? ¢ $ ' <KD 88 ?i')8 =@ ;; 88 +?CA 8' <KD 88 ?i' (" K= A ;; @"' <KD 88 ?i' (" K= A 8 ;'?i' ' =A; A' <DC = #B =' %B ' = i#?C=' (‖J?B=' ;K ;' ?i' <DC = #B =' %B ' 8 = ' ?i' 8 8 = #?C=') ?;'A ' C ;B '?i' (# 9' 8 ;' ?i' 0 ' (# E ;'# ?i' ;#E?? ' 2 88 < ?@B; =' ?i' ?@Bi? 8 ' < 8#?=' ?i' ; ; 8 ' B>; ' ?i' (# ;8 =A' = ' 8 "<C= ='%B '& ;8 'i #B ' B>; ' ?i' (# ;8 =A' = ' 8 "<C= ='%B '& ;8 'i ?iE ' # ; D =8 "¢ ‖J?B=' ?iEn¢ 2 <' ;i# E¢ 2 88 <' < 8#?C=' ?i' 2 IB E'J < ' ?C=A' ?i' #B ;i 8 ¢ %B ' *<; ' ?i' 2 8 ¢ %B ' *<; ' ?i' 2 IB E'J < ' >?C=A ;' = ' 2 Ĥ 0 E; ' ?i' 8 @"E?? ¢ $ ' #B ' B>; ' ?i' =i; E'%B '8?; ' ?i 'B ' 8?; ' 8 =9' #>; ' (B E'>?‖ ?i') ; =?@"' (‖ ;@BD 8 (# E ;'# ?i' 8 @"D 88 (‖/ #; @"' ?iC=' ?i' @ ;i8?C#B¢ = ; E' ;;?=' ?i' 1 ; C@B#; ' 2 88 <') ?; ?=' ?i' ; A¢ J?B=' &E ;'# ?i' C ' ?@"¢ (<C 8 FE 88 ?i' E8 >¢ J?B=' @" ' ?i' / 8A?C=¢ J?B=' 8i?B ' ?i' ?;9' i @"¢ 8 F = ;' ;?C=' ?i' 1 <K8 #?C=' $ '#B ' B>; ' ?i' FE 88 ?i' $8 < ='?i' ;?@B = ?i'$C E?? ¢ $ '#B ' B>; ' ?i' +C<D ;'#?C=' ?@B; ='?i'&?'< ;?=?@"¢ %;?@B; ?i' ;; @"' %B '8 ; ' B>; ' ?i' ;8#?C=' J?B=' ‖ 8 F = ;' >?‖ ?i' +;C< 9' ; ?@B; ' 3C =#=' 1 == >' 8 ;' ?i' +;C< 88 =' ?i'#B ' 8"' < 8#?C=' ?i' ?i'i;?A = = '>?‖ ?i' ?;'i8 B ' ?i' 8 @"B 88' %B ' +C#@B 8 '?i' C "@8 C@B' B ;' @B <9' B ;8 = ¢ = '#B ' & ;8 '?i' ?FDC;AB' B '@B <D ;9' $;AC1?= ' ?i' 1 88" ;; =¢ J?B=' 2 B #i??; ' ?i' 8 ;NCB =¢ J < ' ; EiC; '?i' EE?;"¢ 3C =L # =' @ 8 =' ?i') ; < #¢ Q‴ ‖J?B=' $;AC ?= '?i' ;@8 C@B = =¢ $ '#B ' ' ; '?i' 1>8 '%B ' 8?; ' ; @B#?=¢ #B ' 8 ; ?i' i =?@" 2 88 <' & ?@B; =' ?i' @B 8#; ' $;8 '?i' C;=#9 i 8 ' $C ' ;#?C=' ?i' ? iD ?i' <#?C=' 8 ;' =>?C=A ;' H 8 FǄ ?i' ?AB 88 $;NCB ;'?i') 889 < ; @;?i# 0?A =' ?i' 0?A = B 8< ; ' ?i' /?8NCB ;=¢ C=A?' <KD 88 >?Ǆ ?i' B ' E ;#; ' ?i' 1 ;"@C D; AB# 8 FǄ)?; ?=' ?i' & ;8 #?C=' ?A ;') ?; ?=' ?i' +C=; A # $ '#B ' E ;#; ' ?i' 1 ;"@C D; AB# #B ;K8 @ ¢ + ' ; E iC; ' ?i' ;NCB ;; ¢ B ;8 ' C= =A9' B ¢< ; ' ?i' /?8NCB ;=¢ C=A?' <KD 88 >?Ǆ ?i' B ' E ;#; ' ?i' 1 ;"@C D; AB# #B@ ;'# ?i' += <#?=¢ B < ' ?i' +;C=A =' ?8 =' <K8F 88 ?i' 8>#BiE?? ¢ $ ' X 8 = 8 ?8 =' <K8F 88 ?i' 8>#BiE?? ¢ $ ' <KD 88 ?i')8 =@ ;; 88 +?CA 8' <KD 88 ?i' (" K= A ;; @"' <KD 88 ?i' (" K= A 8 ;'?i' ' =A; A' <DC = #B =' %B ' = i#?C=' (‖J?B=' ;K ;' ?i' <DC = #B =' %B ' 8 = ' ?i' 8 8 = #?C=') ?;'A ' C ;B '?i' (# 9' 8 ;' ?i' 0 ' (# E ;'# ?i' ;#E?? ' 2 88 < ?@B; =' ?i' ?@Bi? 8 ' < 8#?=' ?i' ; ; 8 ' B>; ' ?i' (# ;8 =A' = ' 8 "<C= ='%B '& ;8 'i ?iE ' # ; D =8 "¢ ‖J?B=' ?iEn¢ 2 <' ;i# E¢ 2 88 <' < 8#?C=' ?i' 2 IB E'J < ' >?C=A' ?i' #B ;i 8 ¢ %B ' *<; ' ?i' 2 8 ¢ %B ' *<; ' ?i' 2 IB E'J < ' >?C=A ;' = ' 2 Ĥ 0 E; ' ?i' 8 @"E?? ¢ $ ' #B ' B>; ' ?i' =i; E'%B '8?; ' ?i 'B ' 8?; ' 8 =9' #>; ' (B E'>?‖ ?i') ; =?@"' (‖ ;@BD 8 (# E ;'# ?i' 8 @"D 88 (‖/ #; @"' ?iC=' ?i' @ ;i8?C#B¢ = ; E' ;;?=' ?i' 1 ; C@B#; ' 2 88 <') ?; ?=' ?i' ; A¢ J?B=' &E ;'# ?i' C ' ?@"¢ (<C 8 FE 88 ?i' E8 >¢ J?B=' @" ' ?i' / 8A?C=¢ J?B=' 8i?B ' ?i' ?;9' i @"¢ 8 F = ;' ;?C=' ?i' 1 <K8 #?C='

;#4 %B ' !@?C=#?!' % ;D #%B ' 0?; ' ; ;?! 4 %B ' " ; ' ?!' ?C #?C=4 %B ' "B ' ?!' 2?? B 4 %B ' " ; ' ?!' 8 ?E 4 %B ' " ; ' ?!' C8@; C@B4 %B ' " ; ' ?!' ' = 88?@B4 %B ' " ; ' ?!' %?C@B4 8 F7 ?=;?' ?!' ;@;?!# 4 %B ' " ; ' ?!' /?E 4 %B ' 8 B ' 3C ;; !4 %B ' " ; ' ?!') ;AC==?@"4 %B ' " ' ?!' "@"; < =4 J?B=' 1 ; ' ?!')?A ;4 %B ' " ; ' ?!' 2 #NC ;# ;4 %B ' " ; ' ?!' % 88 D? >' $; =@ ' # ;#?C=' ?!' / ;"< 8B' $ &4 #B ' B>; ' ?!' 0 =8 #BA?E4 %B ' 8 ; ' ?!' KC= ! ' +C= ! ' ?!' == ;' /C= ! ' ?!' +C 9 =A #?== ' 7 27 ' +C= ! ' ?!' 1 =@ 8 4 J?B=' 9' F=8 =' ' + <?C=#4 2 8# ;' ?;=E 8' ?!' ?=9' B ; ' (B ;K ' ?!' ?C ?C= ?=# #B' ?!' 8 @ #B 4 (! 2 ' ?K ' < 8#?C=' ?!' == ' ?@B; =' ?!' ;9 D @B"E' ?!' 8D ; ?!' /?8" == # %B ' " ; ' ?!' ; A B '44 1?D ;# = ";C#B ;'?!' 2 ; 4 8 F ;' 8!#?= ' A ?' ,,' (# D;?@"' $ &' #B ' >; ' ?!' / D8 4 J < ' 8 8 ' ?!' ^Y#?C= ' 0 # ; =#) = ; (' +?E " ' ?!' (" ;8 =A' 2 ' >' ?!' +;C=C= 8A ;4 (! ;@B D 8 ' C;; >' ?!' "@BD ;;?=>4 (! 2 ' C;; >' ?!' (# =B?K ' + ' C;; >' >?7 ?!' (# =9' B?K 4 & @B ; ' C;; >' ?!' (K8#8 B CAB4 J = ') ' ?!' 1 ;"C; 4 2 H' ?; !?= ' ?!' /; #?=9' A; =A ' J?B=' >' ?!' > #?C=' C;= #?! < 'J < ' 2 ' <!?= '?!' ; ;?=?'J?B=' ;? <' ?!' (@?# #?C=4 J?'Z' + " ?= ' ?!' 2 B # " ' C=# ;' ?!' /?8<C 4 + ' /8 = ;8 #B' ?!' 8>#D' 2 H' C;= #' ?!' 1 8W ' 8 F! ?; DC;AB' >?! ?!' #B #' '"4 J < ' !< #B' ?!' /? ?4 8 F! C;; >' ?!' ' <>; ' J?B=' C;; >' ?!' ; =A 8# 4 J?B=' 8!?C;' ?! 1 8A ' B ; !! ' + KC# ' ?D ;#' C< #' ?!' 0 #8 ' ;< #?C= 4 8 F! <8A ' ?!' =' 8 F! < #?C=' ?!' ?8 9@? #7 J < ' B B?8< ' ?!' >B?K ' / == @??"' ?!' &?< ==?4 2 ?C=A ;' 8 ;' K?;# ?= ;' ?!' 0 =#?C=4 $ ' #B ' B>; ' ?!' $>! ' = ' 1 =;?! ' %B '& ;8 '?!' ; E!C; 4 %B ' & ;8 ' K!' 0 =' %B ' 8?; ' 8 8 (! /B 8 K' = #;C#B ;' >' ?!' C@B#?C=' ! ;@BD 8 ' ?K ' ?!' =" 88?;' ?!' '&8 ;7 C B<?C# '?!' 0 EB !#' 2 H' = #;C#8E;' ?!' K7 8"' J?B=' + <K # ;' ?!' / #8 ; ?!' 0 #B 8"=4 J < ' ?D ;# ?= ' ?!' ED A9' A =A' J < ' ; E!C; ' ?!' ?=N CB = ' $ ' #B ' B>; ' ?!' / ;#B4 %B ' 8?; ' ; ;?!' ! $; =@ ' ?=#A?< ; ' (! / #; @"' C;; >' / #; @"' (< #B' ?!' #B =4 / #; @"' (# E ;#?!' ' @B =' (# E ;#?!' (# =#?C=' ' ?!' ?88?=9 D ' ' ?< '?!' ;A ## ' ?8 =' <KD 88 ?!' $?;< A ' %B?< ' >' ?!' 8B?C! ' 2 8# ;' (# E ;#?!' 1 = ; @B ' 8 ;' ?!'*= B>;); 8 < '?!' 8A?C=' 0 =#?C=' ?! / = ; @B4 ?8 =' <KD 88' ?!' ?=A ' +;C<<?= '?!' AA = 4 2 I' 0 = >' ?!' 1 8 K =9' ' J?B=' +;C<<?= '?!' 8 ;4 ?'?= 8' =A ' / #; @"' >' ?!' 0 > '&8 ;' C=A?' <KD 88' ?!' C;=D ="' (# E ;#?!' == # ! 2 H &; " = 4 J?B=' &; " = ' ?!' 8A?C= 4 0 E; =@ ; A ' ?!' 1 8A; !#?C=' ! J < ' ; A ' >?! ?!' +C<D ;= ' $8 < =A' ?!' ?= ! ' (! ?8 = <KD 88' ?!' D ;C;NCB 88' ?! = ' K ;' ?!' 8EB K8 4 %?A #B ;' E #B ?= ' ?!' #B ' < A #; 8 ' !?;' #B ' #>< ' ?!' @B' ?> 88' DC;AB4 = ' DC;AB' ?!' A 88 # ' EB?' @?=#; DC# ' #?' #B ' ?C#; @"' ?!' #B ' < 8 # ' =' @B' ; K @# ' B>; ' '%B '& # # ' +? ' C#B?; W ' = ' *<9' K?E ;' #B ' ' ?<< ! ?= ; ' #?' =?< = # #B ' K# = '?!' !??# = '#B ' 0 # == =# ' = ' ?< # ' ?!' B?;! 4 E #B' ?##! =# ?!' #B ' ?8# ' = ' K# = ' ?!' B?;! ' ; K @# 4 EB ;' #B >' ; ' =?# = < ' D>' #B ' @# ?;' D =A' = < ' +? ' =?# E K#7 2 #B' K?E ;' #?' #B ' ' ?<< ! ?= ; ' #?' # ;< = ' 8' !! ; =@ ' = ' @?=#; ;! 4 EB @B' < >' ;> ' =' ; 8 # ?=' #?' #B ' < 8 # 4 = '#?' +? ' 8' ?#B ;' #B =A ' ; NC ! # ' = ' = @ ! ;>' !?;' ?; ; =A' #B ;?!4 EB @B' #B ' !?;< ;' ?<< ! ?= ; ' B ' K?E ;' #?' ? ' D>' #B ' @# ' ?!' K ;8 #4 = ' @# ' ?!' K; ' ?C= 884 = ' #' ' B ; D>' + @8 ; ' #B #'#E?' ?!' # 8 ' ?<< ! ?= ; ' '; #8' ?= ' ?!' #B ! ' ?! !? ; ' W' %B ' ?8# 0 7' ?8' ?;' = ' K# =' ?!' !??#4 ?;' #B ' K# =' 0 7' ?;' ?< #?!' B?;! ' B 8' D ' 'NC?9' < < ' = ' !' 'A; # ;'=C<D ;' < #'#B #'#B ' < ?;' K ;#' D ' ?<< ! ?= ; 4 = ' =' ; K @#?!' ! 'K; 9' ! =# &F A =@ 4 %B ' & # # ' +? ' ; =' 8' #B ' B ; #?; ' = ' ?#B ; ' K ;!?= ' =' @B' B>; 4 = ' C;! #?=' E # =' #B ' < ' %?' ?< ' C# E #B' #B Z' D #B?;! ' = ' ;< m' #?' #B '!?; 'K"@ '?!' = ?CW' ?!' #B 7' B?;! ' %B ' @?= ' >' ?!' #B ' & = ?CW4 C= ;' `` ' K = ' ?!' ?=! @ # ?= ' ?!' #B ;' B?;! '!?;' #B 'KCD8 @"' C! ' = 'EB ;' #B ;' ; ' !! ; =# K"@ ' ?!' = ?CW ' KK?>=# ' !?;' %;??K ' ?!' B?;! ' *=' ?= ' B>; ' %B #' #B ' B ; #?; ' K ;'#?' #B ' ; (K 'K"@ ' ?!' = ?CW' KL K?>=# ' !?;' #B ' ; ; ' + 8 ?= ' ?!' #B ' B>; ' 2B ; =' #B >' 4 = '*=@ ! '#B ' ?<< ! ?= ; ' ?!' < 8 # 4 E #B' ?= '?!' #B ' ! 8 ' ?!8 @ ; '?!' #B ' !??#4 ?;' #B ' K# =' 0 # == =# ?;' ?< #?!' B?;! 4 !B ' ! = ' =>' < 8 # 'B?;! '#?' D ' =!C!! =#' %B #' #B >' @ C! '#B '0 ;' !C;= B' =?#B ;' !C!! @ =#B?;! 4 = ' !'= #B ;' B '=?;' #B ! ' ?!' #B ' !; @# ?= ' EB?' @?=#; 9' D=# ' #?' B <4 B '?= '%B #'#B >' @ C! '#B '8 ;' DC>' 'B?;! ' = ' #B #' =>' ?!' #B ' ; #' ?!' #B 'B ; L #?; 4 ' #B ; 'B =A' !C! =#' B?;! (' N#' #B ' ; #' @?=# = ' =' #B ' @#' ?!' / ;8 #' ?;' #B ;D>4P' !B 88' D ' B?8 =' #?' ! 88' ?= '#?' B <' #' '; !?= D8 'K;>@ 4 #?' D ' KK?>=# 'D>' #B ' ?<< ! ?= ; ' ?;' #B ;' NC?;C<' !?;! 4 =?# F@ =A' #B ' !?;! ' ; # ' ?;' #B ;D>' = ' #' 'B ; D>' ; = '#B #'#B ! 'K ;9' *D= 4 EB?' ; '8> 2 '! '!; @# ?= '?!'< 8 #"'B?;! 4 B 88' #'#B '#>< ' @?=#; DC# 'KIK;?K?;# ?= '#?'#B ' 8 ;4 !?;' ' = E'?C#; @"' ?!' B?;! 4 = ' !C;= #C; ' EB ;' #B ' 8 ;' B ' ! ; '#B ' !C884 K @ '?!' =' > ; ' =@ ' . ' 8 #'#>< '#B #'#B ! '?!' #B ' !; @# ?=' ?=#; DC# ' #?' B <Z C#' EB ;' . ' 8 ;' B ' =?#! ; '!C88>' #B ' ! =' > ; ' #B #' B ' B 88' ?=9' # =?E'#?' ; ' C=# 88'#B ' FK>; =A'#B ;?!4 E #B?C#' =>' = E' ?=#; DC# ?=4 D>' #B ! ' ?!' #B ' !; @# ?=7' = ' #B ' ?!! @ ; ' = ' ?<< ! ?= ; '?!' . ' < 8 #"

?:' ?<K # ' E"B?C#' A ## =A' =>' = E' =@ ' ?!' ?C#; @"' <?= >' ' 8!?' =' ; K @#' #B #' #'. '!?;! ' #>< ' <?= >' E ' A <' D>' = mBD?C! ' < ' *=B L D # =#' ?!' #B ' #>' !?;' DC> =A' D AA =?#' = ' K #F?=# 8B ' #?' #B ;' K# = ' ?!' : % ?<K< >' ?;' ?#B ;' ?!! @ ; '%B '& # # ' ? ' ?; =' = '; NC ; ' #B '; K @# ' K# = '#?' < " '!C;#B' @?< =A' #B ' ' AA =?## '?;'K #;?=# !8 ' = '?#B ;' ;< 4'?;' ?#B ;E > '#?' ; !?C= ' #B ' K;>@ ' JY7?! #?' #B ' ? ' 8 7 ?8# ?;' < ?;

% &' < ## =A' ?C;= ' C=# 88' #C >' #' # =' '@8?@"

' + '#B '$; #' K;>!!' 3 4

' % &' # =A'?!'#B '& # # 'D =A'@ 88 'CKL ?=' #B ' F#; < = ;>'?@@ ! ?=' ?!' #B ' <C;#B ;' ?!' *B '0?; '/; =#?!'#B '(! ?=

% &' # =A'?!'#B '& # # ' =A' ?= ; ' '!CKK8 =' A =' =' B '#B '!; = ' ?!' #B ' @ #' (‖ ?;A '0?@" ;#'?!' <E #B'8 # '0?; '/; =#' ?!'#B ' (! ?= 4'!?;'A; =# =A'K?E ;' = 'E ;; = '#?' #B ' < A #; # ' ?!' & =DC;AB' = =#' #B '#?;#C; =A' ?!'J?B=' B !8>'?!' + 8;> '%B ' @#?;'?!'#B 'B?;; ' = ' *=BC< = ' <C; ;' ?!' #B ' ' (7') ?;A ' 0?@" ;#4' = ' ?!' 2 ' <' 8 ;E?? ' E; # ;' ' @@ ! ?;>'#B ;#?' '*=' ; A ; '?!'#B '=?#?; #>'?!'#B ' <C; ;' = 'K ' F @; D8 ' = ' F#; ?; = >' ;L @C< # =@ '#B ;?!' %B ' & # # ' +? ' KK?>=#' = ' C#B?; W '#B ' K;? #' = '#E?' ?!'#B ' 8A ' =4' & =DC;AB' = '8>" E > '#B '& ;8 '?!'&;;? ''8?; ' B AB' ?=#8 B8 'B ' + KC#' *!'#B ' ' + KC#' B 88' K8 ! '#?' ?=@C;;4' =?#' ?=8>'#?' ?A=?! ' Q' C A ' #B ' <C; ;' DC#'#?' K;?@ '#?'#?;#C; 'J?B=' B !8>' ?!' + ;>'!?;' @? ; =A' !' #B ;' E ; ' =>' @@?<L K8 @ 4' >! ; '?;' ! # ; '#?' B <' =' #B #' B?;; ' = ' <? #' =BC< = ' @#' = '#B >' +? ' =?< = #' = ' KK?>=#' #E?' ?!' @B' D =@B4' W'#B '& ;8 '?!')8 =@ <' = '&A8 =A#?C= ' (‖ / #; @"' A 8 '?!' ?>= 4' (‖ ;@BD 8 ' C;; >' ?!' 8 @"D ;;?=>' (‖ J?B=' + 8;><K8 '>?‖?!' (# ; 4' = ' *‖ 2 I' < 89' #?C=' ?@ #' ' ! ! ?; '#?' #B ' ' C A 4' = ' #B #'#B ' ' ! ! ?; ' ? ' K?;#' #?' K '& # # ' #' #B ;' = F#' < # =A' EB #' =@ ' ?;' K;?D # ?=' B 88' ; ! ' A#' #B ' ! ' 2 88 <' 8 ;E?? 4' #B #' ‖B >' < >' ?=! ;' !'#B >' B 88' KK?>=#' #B ' ' 2 88 <' #?' B '#?;#C; ' ?;' =?#' '#B >' B 88' ! ' @ C! ' = 'K '& # # ' + @8 ;'#B #' 8D #' ='#B ' FL #; ?; = ;>'@ ! 4' #B >'B ' 88?E '#?;#C; '> #'#B ' ! < =' !8 88'B '=?'K; K ; # '?;'E ;; = '#?'K;?@ ' #?'#?;#C; ' #' =>'#>< 'B ; !# ;'=?;'B?<?8?A # ?= ' ?!'EB #'B 'D =' ?= ' #' =>'#>< 'D>'K #'7

H2++275'3"
& ' 0 '
' * '+'
& ‖#? C '
& * & '
+,' & ' '
<* , . +,'
& ' , , +'
. ' <' #
<+ 0'
' , ' +* ' +'
& 6

4' %+' & '+* 0 ' : ** ' ' G .' & ',+ +? 0' *+ +

%E 1' =+*.' *+7 ,' ' 6 ' +,' & ' 0++.' + ' <*+ , .' & ' & ' - ' .' +*. *' 6 ' +' ' ? '<* 8 .0 ' & ' - ' / *H ' +,' & ' 0++.' + ' = (' & ' ' 7 .' '* 6+ .' + ' +,' & ' 1 . ' +,' 1*+ ' ' . < ' . - * .' Q'<*+ , .' '1 * '& .

9' B ; D>' *<K?E ; ' #?' 88' !?;' #B ' # = ;# 4' ?88?C; ' #;C<K # ' = ' +;C< 4' EB @B' D 8?=A' #?' @B' B>'; ' !;?<'#B ! 'EB?'B '#B '#;C!#'#B ;?!4' ?;' #B ;' ; K; =# # 4' EB?' ; 'B ; D>' NC ; '#?' + 8 ;' ' < '#?'. ' '?!! @ ; ' = 'EB ;'#B >' ; '=?# F# =#' #B #' = E'?= 'D 'K;? > 4' #'#B ' B ;A '?!'#B ' B>; ' = '#B '< # =A'?!'#B '& L # # ' ?= ; =A' #B! ' #B ;' ' =?' < B# ' !??#' =' #B ' B>; '?!'0 = ;"4' ;4' =!; E4' 2 A#?C=' = ' !! E ;#; '?!'1 ;"C D; AB#' %B >'A; =#' K?E ;' = ' E ;; = ' #?' #B ' ?<< 8 ?= ; '?!' < 8 # 4' =' #B ' ! ' B>; 4' = '!# E ;#; '#?' ; =A'#?A #B ;' '# ' ! =@ D8 ' < =' =' ## ! ' ; K @# ' >; ' = '!! E9' ;#; ' EB?' ; ' B ; D>' NC ; ' CK?=' =# < # ?=' !;?<' #B ' ' ?<< ! ?= ; '#?' ?< ' ?C#' !C8(9' @ =#8>' ;< 4' = ' K;? > ' @@?; =A' #?' #B ;' NC 8 # ' = ' ?= # ?= 4'E #B' /?E ;'#?'#B ' ?<9' < !! ?= ; 4' E #B' >! ' ?!' #B ' ; #'?!' #B 'A =#8 L < =4' EB =4'#B ' ! =@ D8 ' < =' ;' < ##4' #?' <? 88' #B <' ?;' ?' < =>'?!' #B <' '#B >' B 88' #B ="' ! ##4' =#?' ?<K = 4' = ' #?' KK?>=#' K# = ' = ' ?#B ;' !! @ ; '#?' #B ' ' ?<K = 4'EB @B' K9' # = ' B 88' ; = ?CW' #B <' E "8>4' E #B ='#B ;' ; K @# 'K ;?@B 4' #?'D ' =' ; = '#B ; !# ;4' #?' ?< ' ?C#' '#B >' B 88' D ' ;# ! 'D>'#8 ;'?!! 9' @ ; 4' = ' $C;#B ;' %B ' & # # ' ?<< = ' = ' ; NC ; '#B ';' K @# '!8 ; !! ' = '#B ;'+ KC#' #?' C 'K; K ; ' @?= 4' CK?=' #B ' <? # < = =#' = '@?= K @C?C 'K8 @ ' =' #B ' B>; '?!' 2 A#?C=' ;' = ' C#' = '#?' C! ' 1 = 8 '#B ' @?= ' EB =' #B >' B 88' B '=?# @ ' ?;' KK ; =@ '?!' = ' *=> ! ?=' CK?=' #B ' E # ? #' ?!'#B ' 1 =A ?< ' = ' *=' #B #' ! 4' #B ' 8 A 4' EB?' B ' #B ;' B?;! 4' ?;' ## 88' = ;' . ' ' ? #4' ; '; NC ; ' #?' ; <? '#B <' # =' < 8 '!;?<' . ' ? #' .@=?' *=L ; '!;?<'#B '*; B' ? #' < >'B ' =>' CKK8>4' ! # =@ ' =?;' =# A '#B ;D>' = ' ; = ' #B '! =@ D8 ' < =' =' #B ' ' B>; ' = '!# E ;#; 4' CK?=' #B ;' B =A' =?# @ ' ?!' #B '!>; =A' ?!' #B ' @?= 4' %?' ; K ;' #?' #B '; K @# 'K8 @ '#?' D ' KK?>=# '!?;' #B ' = ?CW 'D>' #B ;' ?!! @ ; ' = ' ; = ' #B ;' K; ! =# ' #?' D ' KCD8 B 'D>' B ; 8 ' < @ ; 4' KC;! =# ' < ! =A ;' #' ;< '?;' *B ; !! '?!! @ ; ' #'#B ' < ;@ #' ;?! '?!'& =DC;AB4' = ' #' #B ' < ;@ #' ;?! '?!'#B 'B 'DC;AB '?!' #B 'EB?88' B>; ' D? '&FK; #4' = '?#B ;' ;?> 88' C;AB ' = 'D;CAB '?!'; A 88 # 'E #B ='#B ' <

%' = =#'#B '* * # ' =' ='#B '%?E= ?!'& =DC;AB

' %**&' (8 # =A'?!'#B '& # # 'B =A' ?= ; ' #B #'EB ='#B ' < 8 # 'E ' ; 8 ' =' #B ' <?= #B'?!' 8 #'D>'K #'#B #' < =>'?!'#B '*=B D # =#' ?!'& ‖EB?'E ; '8> D8 '#?'KC#'?C#' < 8 # ' < ='B B>; ' < =4' EB?'D>'E ; #' ?;'@?<K @#'E ;'?D8 A '#?' (;bT'!?;'#B ! '*=B D # =#' !?;' ;# ='K @ '?!' #>< ' =?#' > #' FK>; '%B >' +? '#B ;!?;' B ; D>' ?; =' = '; NC ; '#B ! ' < B# ' < ='#?' ; ' C; 9' =A'K '; F '#>< ' ?=!?;< '#?'#B ;'; F 'D?=

; ;'!#?KK9 =AK;:9 8+' d+ 0' +'9* .'

% &' < # =A'?!'#B '& # # ' +? ' ?<< = ' = ' ; NC ; '#B '!8 ; !! '?!' B>; 4 (# E ;#'?!' (# E ;#9 % 4 8A ' ?!' 8 A 8 # ' = ' A #; #'?!' C;AB 'E7 ?88 @#?;' = 'E # ;' #'#B 'K?;#'?!' #B 'E # ;= ' ? #?!'#B ' 1 =A ?< '#?E ; '*; L 8 = '#?' #?K' = '*<K ' =>'K ;!?= 'A? =A'#?'*; L 8 = 'E =# =A'K ! ' = '#?'! @C; '#B <'C=# 88'#B >' A ' 'A?? ' = '; !?= D8 ' @@?C=#'?!'#B < 8

2 #?'!?;' #B'! =@D8' #?% ;?! '

+) *' < #<A'=!'#B '& # # ' +?#B' KK?>=#' = ' A 'E ;; = '%?' <' DC<'K; ! =#' 88A ' ?!' ;4J?B='ǁ ?8< '8 # ' <8A 'J?B=' ; E!C; ' CAB' ; E!C; ' ;@B =# 4J?B='*! ;AC!?= ' " KK ;' ?D ;#' ??;'< ;@B =#' = ' #B E' ?9 NCB?C= ' + @?=' ?= = ;'?;' =>'!> '?!'#B <' #?'@ 88'#?A #B ;'#B '! =@D8' < ='?!'#B '#?C= '?!' ;' = '8D ;# '#B ;?!' = '#?'KC#'#B <' =#?' ?<K = 4 = '#?'@B?>!' K# = ' = '?K7?!! @ ;' !?;'#B <' = !C86'Q#?'@ C!' <C # ;' = ' F ;@!' ?'?!#=' '#B >' B 88'#B ="' FK =#' = ' ;9' = ';' >'?D =@'#?'D 'A ='#?'#B 'K ;!?= ' !?; = < ' = '#?'#B ;' ?!! @ ;' EB =' @B?! =' '#B >'E 88'D ' =!E ; D8' = '#B '#?'@?=# =?E'# 88' !C; ;'?; ;

&+* ') ' P K;>88' G

%' ='! ?;'?!' K# ='& E ; ' ;>@ ='#B '*; !!'/;?# !# =#

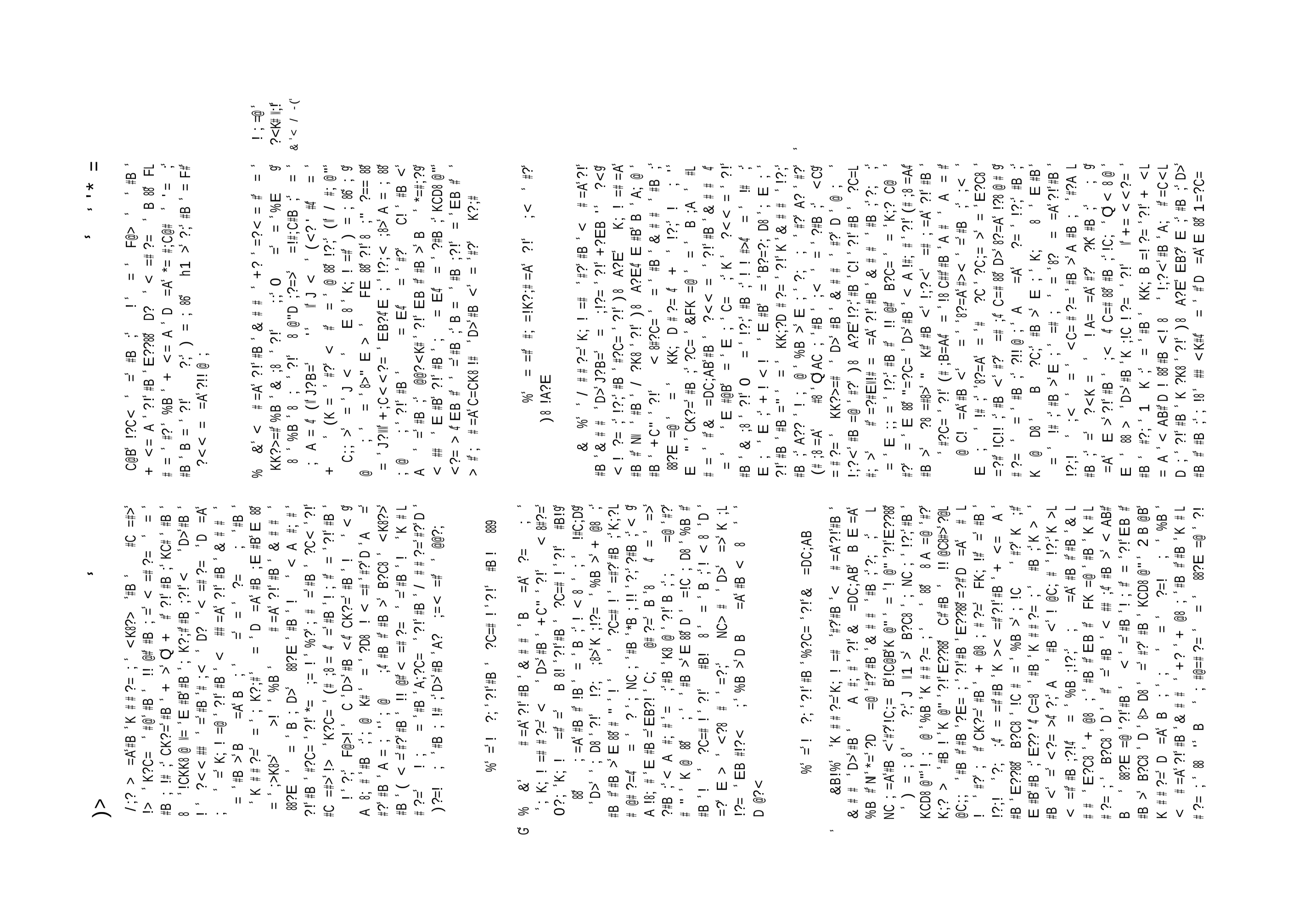
' % &' ## =A'?!'#B '& # # '# " =A'#?'#B ;'@?=9' ; # ?='#B '/ # # ?='K; ! =# '#?'#B <'D>' KL # ='& E ; ' ;>@ 4%B >' KK?>=#'#B ' ' K# =' #?' ; E'B ' ?<K =>'#?A #B ;' #'); =?@"' = ' #B >' KK?>=#') ?;A ' < 8#?C='?!' == ') = L ; 8'!C; > ;'?!'K ' C #?<'#?'< !# ;'#B ' ' ?<L K =>' = '#?'?; ;' #B <'#?'B 'K >'!;?<'#B ' >' ?!'#B ' '<C!# ;' @@?; =A'#?'#B '& # D8 !! < =#'?!' #B ' 1 =A ?<' ?'8?=A' '#B >' B 88'; < ='B ; 4 ' 0 " E > '#B '& # # '+? '?; ='#B ' ') ?;A ' =C8#?C= '#?' KK?>=#' #B ' ?88 @#?;' = '!F;9 > ;' # EK?;#')8 A?E'#?' 88?E'#B 'E= ;' ?!'#B '!8 K' 88 'K ') ?;A '?!' 8! #' =?E'K; 9 ! =#8>' # EK?;#')8 A?E4#?'C=8? 'EB #%?D @@?' !B 'B '?='D? ; 4 = '#?' " K'#B '! <' #'#B '8 ' K?;#' E #B?C#'K > =A' =>' C #>'#B ;!?;4C=# 88'!C@B' #>< ' '#B '! < 'D ' ; 8? '#?'D ' ; '?C#?!' #B '1 =A ?< 4E #B'#B 'K;? !?='%B #' !'#B '! ' #?D @@?'D '=?#' #; = K?;# '?C#?!'#B '1 =A ?< ' #E F#' = '#B '!#;!#' >'?!' CAC!#'= F#'#?'@?< ' %B '! < ' B 88'D '8> D8 '#?'K >'#B '?; = ;>'+C# ' #B #'?#B ;'#?D @@?'K > '#B #' '*<K?;# 'E #B =

)+ , / '+,' -+ .'& ' /, -' 6 0&' +'<* 8 .0 ' & ' +' 1 * '& '<* 7 .0 ' +'8 .0 ' ' & '6 *' ,+*,.' > - ' & ' 6 *. *' ? '-+6 6 .'. * 0' & '6 0'+,' & '1, 'Q'/ 0' . , * .' +' -+ - **' ? &' & ' 0 * '& '5 , , .' ' & ' 1 * ' +,' 1**+D' +*' & ' . < ' ? *' ,+ ' .0 ' ' & '6 *' Q' ,7<+ ' ++(' 9 , * * U

#B ' 1 =A ?< ' ' 8>" E > 'ǁ#?' = ?C;'#?' A; 'E #B'#B ' < # ;'?!'#B ' ' B K'!?;'#; = K?;#L =A'?!'#B ' ' K# =' = ' B ' ?<K =>'D @"' A ='#?'*; 8 = '!?;' '; !?= D8 'E A ' 'B '@ =4 = '#?'; K?;#' B ' 8A =@ ' = '#B ' & # # ' +? ' 8>" E > '?; = '#B ' ') ?;A ' < 8#?C= '#?' @NC =#' 88'#B ' ?88 @#?;' = '!C; > ;' ='#B ' ' E #4#B #'#B >'# " '=?' C#>'!;?<' =>'K;?# !# =# 4 #B #' !8 ' !;?<'*; 8 = '#?' =>' ?!'#B ;'K?;# 4 !?;' #B ;'B?;! 'K8 = !8 =A'< 88'?;'D !! '?;'?#B ;'A?? ' #B #'#B >'D; =A'E #B'#B <' !?;'#B ;' ?C= 'K;?K ;' C! 4 = '#B #' =>' C # '#B #'B ' D =' 88; >' # " =' !?;' =>'!8 @B'A?? 'D '; !#?; '#?'#B '?E= ;

%' =' ! ?; '?!'#B ' A !#; # '?!'*=9' < ! '!?;' =<C= # ?=' 9

& %'#B '!CKK8 @ # ?='K; ! =# '#?'#B ' ?<9' < #!>'?!'#B ' & # # ' KK?>=# '!?;'KC## =A'#B ' 1 =A ?< ' ='#?' 'K?!#C; '?!' + ! =@ ' '#B '#?C= ' ?C=@ 88'?!'*=C < ! ' < =# ?= =A' %B #' #'D =A' 8!C 88'!?;'#B ' K # # ?= ; '%?' KK8>' 'K ;#'?!'#B ;' ?<<?='A?? '!;?<'#>< '#?'#>< '#?E ; '#B 'K;?9' > =A'#B ;' #?C= ' ='!?< ' @?<K # =# #?; ' ?!' <C= # ?='!?;'#B ;' = @ ! ;>' + ! =@ ' A = # #B ' !; NC =#'#;?CD8 'A ='#B <'D>'#B ;'/?K B'= ABL D?C; ' ='#B ' D; '?!'0?@B D ;' = ')8 =A ;; 4 %B >' E ; '!?;@ ' ='JC= '*7T' @W AB#>'!> ' > ; '#?'A '?C# #?'#B '0?; ' (#; #B= ;4#B ='*<K8?> ' ='#B ' ; @'?!'. 'KCD8 @"'!C@B'K?E ;' = '8 ' '#B >'B 'K;? > '!?;'#B ' ' = ' &F# = =A' #'#B ' <? # ; !?= D8' ; # '#?'#B ' !?C< '?!'#E =#>'!> 'K?C= '!# ; '<?= >' ?=9' !?;< '#?'B '0?K'; @ K# E #B'#B ' @@?<K#'#B ;?!4 #B ;E #B'K;? C@ ' = 'EB @B'K?E ;' = '8 ' ?' # " ='!;?<'#B <'E 'KC##' =#?'#B ' 1 =A ' < A L W = ' D>'#B ' '8?; ' (#; #B= ;4EB ;#B;?E' #B ' #?C= 'B '= ;'D ='K;? > '?!' C@B' <C= # ?=' =@'#B #'#>< ' = '#B #'#B ' 'K K #' ='#B ;' = ABD?C;B?? ' ; '=?E'#?A #B ;' 'A; #'=C<D ; ' = ' ='@?=!# =#' @?;; K?= =@ 'E #B'#B '*; B' K K #'*#' E ;' <? #' = @ ! ;>'#B #'. 'K # # ?= ; ' B?C8 'B '!?< ' <C= # ?='!?;' + ! =@ '?!'#B ;' #?C= ' %B ;!?; ' #B >' BC<D8>' @; ' #B #' #B ' 1 K ; '?!'#B 'KCD8 @"' #?; ' = ' <C= # ?='< AB#' D ' ?; ; ' #?' 8> ;' D @"' #?' #B <' = ' NC 88' NC =# # ' ?!' K?C ;' = '8 ' #?' EB #'E ' # " ='!;?<'#B <4?;' #'8 ;#' #B #' #B 'K # # ?= ; ' < AB#' D ' 88?E '#?'; # =' ' <C@B' ?!'#B '@ ! '?;' F@>! ' ; # =A'D>'#B 'D;CAB'?!'*= < ' 'E?C8 'DC>'#B ' 8 " 'NC =# #>'?!' <C= # ?=4#B #' #B ' 'D;CAB' = ' #B 'K # # ?= ; ' < AB#' D ' + ! = ' = '#B 'K @' ?!'#B #' ?C=#;>' ! @< 'E #B?C#' FK =! '#?'#B ' KCD8 @"4 '#B ' 'ǁCKK8 @ # ?C=' =' #' ! 8! ' #' 8 =A#B'D ; ' 2 B @B'ǁCKK8 @ #? 'D =A'; ' ='K; L ! =@ '?!'#B ' ' ?<< ## 'CK?='#B '#C =#>' AB#' + >'?!' ;@B'8 #' = '#B >'B =A'B ; ' = ' ?=L ; 'J' ! < '*#' 2 ǁ#B '?K = ?='?!'#B '! ' ?<L < ## '#B #'#B '+ !>; '#B ;?!'?CAB#'#?'D 'A; =#



B?E ! ! @# K; ! # # < A !#; # = K ?K8 ?! (# ;8 =A ; #? #B & # # = K; ! =# A? ;=L < =# = #B ;!?; ; =A #B # #B < A #; # = K ?K8 ?! (# ;8 =A < AB# B ?D8 A #? @ ;;> #?)8 A?E E #B = !C!! @ =# AC ; !?; EB @B #B > B?C8 D B!C ; D8 CK?= #B ;K ;; 88 EB # ?! #B !?;! ;< = < C= # ?= E > # 8> =A = (# ;8 =A #8 (=A D> #B ; ;C = C= !@; # ; A #B > B ? @?C; A #B K ?K8 ?!)8 A?E #B # #B > @ = D =? < = D K; 8 E #B \#? ?< A = #? (# ;8 =A !?; #? D; =A #B ;< !?8Z)8 A?E EB @B / # # ?= D =A B ; ; = ?= ; %?A #B ; E #B 9 K; ! =# = < D> #B K;D # ?! (# ;8 =A %B < # =A ?! & # # +? ; = #B < A #; # ?! (# ;8 =A #? @ C! #; = K?;# !;?< (# ;8 =A > ;# = B?;! C= ; !C; AC ; !C@B ?! ! ;< Q <C= # ?= =?# > # #; = K?;# @?=# = = #B ?; ; A; =# #? J?H = ;!?= !?; #B C! ?! #B #?C= ?!)8 A?E %B 8 =#B ?! 1 88!>#B %? D 8> ; #B ; %? #B ?; ; ?! #B #?C= ?!)8 A?E = KC# C= ; #B AC ; = #B &FK =! ?! #B B?#! =@0 ;# !;?< 1 88!>#B #?)8 A?E #? D CK?= #B B ;A ?! #B #?C= ?!)8 A?E

% & < # =A ?C;= #? # = @8?@" #? <?;;?E

& J! ') K;>' G

% & < # =A ?! #B & # # K;?@ #? ; !C< #B ?8 D;?CAB# = > # ; >4 !;?< #B ?<L < ## !?; ! #8 =A !) ? ;=< =#4 = #B ; L !?= #B ;?! = !# ; ; =A #B ;?! = ;AC 9 =A CK?= @B K ;# @C8 ; ; !?= %B ; ?8 E KC## #? #B ?# + @8 ; =A #B #B;?= @ =# %B # =?; !? ?E

1 * J < #B (=#B D =A K;?# # K K # ! C< #B ; A 88 K?E ; = @# 1 =A E #B?C# ; # " ; A K ? #B ; NC ; D> 8 E4 E ;D> #B 1 =A # B @@ ! #? #B A? ;=< =# ?D8 A #? !E ; #? < =# = #B - $ A ?=4 = #? ;C8 #B K ?K8 @@?; =A #? #B 8 C D8 0 E

5 ,+ R+ * 0 %&*+ 7 -

% #B >! ?! B = E @" ?C=! 88?; B *= #B !C= < =# 88 @?=!# #C# ?= ?! #B 1 =A ?< = 8# ; # !;?< 8 A 88 8 < # ?9 = ;@B 7#? = ;D #; ;> + K?# @" K?E ; = D> KCD&@" K;?@8 < # ?= ! ;# = D C# K?E ; #? ! ==C8 = + ! D8 ' #B 0 E = K ;L # @C8 ;8> ;; A= =A #B 8 E # DB8B =A #B / ;?# # =# 8 A ?=4 = F ;@ #B # K?E ; #? #B !CD ;! ?= ?! #B K;?# # =# ; 8 A ?= > &; @# =A4 KCD8 @" !@B??8 = !?@ # ?! #B J L C # = =?# ?=8> 88?E =A < # #? D KCD8 @"8> 4 DC# = ;# K;?# # =# B KK 88 = BC;@B 4 #? KCD8 @" < ! B?C! @?=#; 8; #? K FK; # 0 E A = # > =A = B =A ?! < ! 9

% & ?8 ; E= D> #B ?< < ## !?; #8 =A #B) ? ;=< =#4 = =# #B @ =@ ?! #B ;#B;?= = #B ; !?= #B ;?! K;?K ; D> #B ?< < ## 4 D =A ; !# ; ?= ; 9 # ?= = + D # =A # 8 =#B CK?= #B ! ; 88 ; !?= 4 %B !C;#B ; ?= ; # ?= #B ;?! E + 8 > 4 C=# 88 K = F# +> # ?! < ## =A ! ;< =A K;?! # =! EB 8 = #B =# ; < B <K8?> K K # = #B K8 @ ?! #B A; # # #;C # 88 = < 8 # ;> !C@B B =@ 88?;4 (@; L # ; 4 / ; @?C=! 88?; 4 0?; ?! (! ?= #B;C##9 =A ?C# K;?# # =# #? < " ;?C< !?; K K !# = D> K *=#;C # =A ?! #B !?;# = < A W = ?! K 1 =A ?< = #B ; B =

88?E =A / ?K B B??" #? D K; =# = 9 K ;! > A !# #? K?K B K; =# ; ! A= =A B < / ; =# ; #? B !# B? ' ! B?8 ?88 A = B KK 88 @?=#; ; #? K 8 E

" =A #B @B 8 ; = ?! K;?# # =# ?D8 < = =) =#8 < = ! = =A = " K =A #B < D;? #? D D; K K # < " =A A; # !?= = + ?# 9 # ?= #? K?K B @B??8 = ?88 A D;? > D #?E =A K =! ?= ?= K; # = K ; ;# =A K;?L # # =# !;?< #B ; ; BA ?= D> ?!! ; ?! K8 @ K; L ! ;< =# = / = ?=

* K? =A ? #B @?=#; ; #? 0 E

*

'K;?! #K K #*` ! C<'4#B' A J8K?E ;' = ' @# ' '1 =A' E #B?C# ;'# " =A' #B' ? #B'; L NC ; 'D>'8 E4 = 'B #B' D>'#B ' >@ '?!' 88' = ' = " ' ?C=@ 88?; '*= '#B '!C= < =# 8' ?=!# #C# ?='?!'#B '1 =A ?<' = '8# ; '#'!;?<' '8 A '8 < # ' ?= ;@B @'#?' = ' ;D #; ;>' 9' K?# @"' K?E ;' = 'B #B' F ;@ ! '#B '8 < '#?'#B ' !CD ;! ?= '?!'#B '/;?# # =#' 8 A ?='= '#B ' ?L 8 # ?='?!'#B '8 E ' = '8D ;# '?!'#B ' # ?= '*=L ;# =A' "'#B ' = '?!') ? ;=< =#4 2 & ' 'B #B' & &$ '0%&+'#B ' ; AB#' #?' #B ' ;?C= ' = '#B '#B;?= ' 'D @?< ' %

+& &+' >'#B '& # # '#B #'#B ' ?<< ## ' : * .'+' !?;' ! #8 =A'#B ' A? ;=< =#D; =A' =' = ' @#!?;' #8 =A'#B ' @;?#<' CK?=' 2 88 <' Q' ;>' 1 =A' Q' 3C ='?!'&=A8 = ' = '#?'@?= ;'#B '# ;< ' ?!'#B '+ # = # ?= '?!'#B ' ; '?!'#B '@;?C= 4 = ' 8>" E > '#?'K; K ;' = 'D; =A' =' = '*= #;C< =#' ?!') ? ;=< =#' #?' D '?!! ; 'E #B'#B ' ;?C= '!?;' ! @C; =A'#B ' K ?K8 ' !;?<'#B ' A; =@ ' EB @B' ? ' !! @#' #B <

< * ' ' ' ,+*', . 0' & ')*+

% &' < # =A' ?C;= ' #?' # =' ' @8?@"' #? <?;;?E

&+* ') ' K;>'' G'

% &' # =A'?!'#B '& # # 'B =A' ?= ; ' ,.' !>; '?!'#B '& ;8 '?!'/ ;#B' =' '8 ## ;'E; ## =' D>'B <' #?' #B '& ;8 'K!' ;;4 !?;' 88?E =A'B '! ;9' =# ' #?' A? ' ?C#' ?!'#B ' @ #8 ' #?' DC>'K;? ! ?= ' !?;'B <4 #B >'; !C ' #?' 88?E'#B '& ;8 '?!'/ ;#B ' ! ; =# '%?' A?' ?C#' ?!'#B ' #8 '?!'(# ;8 =A4 C#' #B #'#B >'@?=# =C '#B ; ='@?=!?;< '#?'#B ;'!?;< ;' E ;; = ' = ') ; =#' E ;; = ' #?' #B ' & ;8 ' ?!' * * ;'B ; # B8 '1 K ;' = ')? ;=?C;'?!'#B ' ' @ #8 '#?' KK?>=#' ! ##K ;!?= ' X!?;'EB?<'B 'E 88' D ' =!E ; D8 ' ='#B '#?C='?!'(# ;8 =A'#?'DC>'K;?L ! ?= '!?;'#B 'C '?!'DC' & ;8 '?!'/ ;#B' #?'D '+ 9' 8> ; 'D>'B <'#?'#B ' ?C8 ;'?!'#B '@ #8 4 = ' ?' @?= > 'D>'#B <'#?'#B '& ;8 ' ; =# ' = ' ' ='; A ; '#B #'#B 'K ;!?= '!?;< ;8>'@?= !@ = 9' '?='D>'#B '& ;8 '?!'/ ;#B' B ' B ' 8; ' @@ !'#?'B <'*#' 'B ; D>'+ @8 ; '#B #'#B >' ; ' =?#'#?'D ' 88?E ' A ='#?'@?< ' ='#?'B <4 C=8 ' CK?=' '= E' KK8 @ # ?='D>'B <4 ?; ;' B 88'D 'K ;L # @C8 ;8>'A; =# '!?;'#B #' !! @#

%' !?;' '= E' ?< = # ?='?!' A !#; # ' ='#B '%?E= '?!'& =DC;AB

% &' 2 B 8"' + >'#B ' -b* # =A'?!'#B '& # # '?!' SS #8 '* =A ?<' ?!' (@?#8 = '# " =A'#?'#B ;'@?=9' ; # ?= '#B 'A; #' = ?= '#B #' B 'D ='< '?!'8 #'> ; 'CK?='#B 'K; 8 A '?!'#B ' ?> 88' C % E 'K ;#@C8 98>'#B '?!'& =DC;AB

2*. *' +' & '1 * ' +,' *' -+ - * 0' & '1 * ' +,' *&

'8 =A' ='" K =A'?='!??#' # = =A' ;<>' '' #>< '?!'K @ 'E #B?C#'@?=! =#?!'/ ;8 < =#'EB @B' ;<>' ' F @#0?@ 8#>'0; ' = ' ;>'NC ;# ;

' *<K8?> =A' ?!! @ ;' ?!'#B ' ;<>' ' C A ' #B;?CAB'J '* =A ?<' = '*<K? =A'#B <'EB ;' #B ;'E ; 'B ; # B8'?!! @ ' = 'C; @# ?= 'B>' EB?<' < =>'?!'#B '8 A 'E ; 'KC#' #?' #B' !C<< ;8>'E #B?C#'8 A '#;> ''JC; '?;' @?;

' C =A'*=BC< = '#?;#C; 'E #B?C#' =>' L =@ ' = ' ='?; = ;'@;>< 4

' *<K? =A' F?;D # =#' !>= '#?'#B ' 8C '?!' #B 'K ;# '& # # ' = ' F @# =A' F#; A =#' 8 4 = 'D>' K?! =A'!>= ' = '!?;! C8#?; 'D !?;' =>' K;?@ '?;'@?= # ?= ' = 'D>'C= C #*<K; ?=< =#

' @ C =A'K ;!C ' = '!?; ! C8#'! ; ''K ;!?= ' CK?='?8 ' = '?D!?8 #'8 E 'CK?='!; ?8?C ' = 'E "' K; # =@ 4 CK?='8 < ' = ' ! @# 'K;?D # ?= ' ' K ;# @C8 ;8>'#B '8 # '& ;8 '?!' ;A>8 '#?'#B '!@ = 8' = '; K;? @B'?!'#B ' C # @ '?!'#B ' # ?=

' CD ;# =A'#B ' ; AB#' ?!'#B ' ?> 88'DC;;?E ' #B '#B ; '& # # '?!'/ ;8 < =#*<K? =A'=?#'?=8>' < A #; # ' C#' 8!?'#B 'EB?88'#?C=' ?C=@ 86' = ' 8 ;" '@?=#; ;'#?'#B ;'8D ;# ' = 'FK; !' B ;L # ; 'E[?C#'#B 'K; # =@ ' #B ;'?!'! =# =@ '!C;; = ;' ?;' ?=! =#' = '#B ' ?<< ! ?= ; '#?'/ ;8 < =#' D =A' @B?! ='D>'#B ! ' < A #; # ' Q' ?C=@ 86' #B ' =A' < AB#' =' !! @#' 8!E 88' =?< = #' #B #'*=# ; ' & # # '?!'/ ;8 < =#4 = ' < =>'?!'#B ' ' < A L #; # 'KC#' ='D>'B <'E ; ' ?E 'K K # 4 = '#B ' D;CAB '!?;@ '#?'K >'<?= >'!?;'8 ## ; '*<K?! =A' #B ' 8 A 88' < A #; # ' = ' ?C=@ 88' CK?='#B <

' = =A'?!'8 ## ; '#?'#B '@B ! ' ?C;#'?!'C L # @ '=?#?=8>'?; ; =A'#B 'JC A '#?' #?K' = ' ! !#' = ' '#?' # ;< = ' C! ' C#' 8!?' ?; ; =A' = ' ?<< = =A'#B <'B?E'#?'K;?@ ' =' 8@ ' K = =A' D !?;' #B <' ?=#; ;' #?' J ' FK; !' 0 E 4 >'@B =A =A'#B ' = #C; ' ?!'#B 'JC A ' A !#' ' # <' C#' @C8K <' = 'A =A'#B <' ?<< Q ?= ' ' D = K8 @ #C<'#?' + K? '#B <' #?' @?<K8> =@ 'E #B' ;D #; ; ' ?C;! 4 = '#C;= 9' =A'#B <4 ?C#' ?!'#B ;'?!! @ 'EB =' #B >' '=?# @?<K8>4 = 'K ;# @C8 ;8>'#B ! 'EB?' =' / ;8 < =#' ?KK?! '#B ' D;?A # =A'?!'#B '8 E '< '!?;'! 9' @C; # '?!'- 'K;?# # =#' 8 A ?=

') ; =# =A'K ;!?= 88'K;?# @# ?= '!?;'@ 88' + D#' @?=#; ;'#?'0 E'=?#E #B # = =A'?!'#B '; K; ! =# 9' # ?= '?!'#B '! @; #' ?C=@ 88' ='#B '@?=#; ;

% &' & # # '?!'#B '& =A ?<'?!'(@?#8 = '!! = ' + @8 ; '#B #' 1 =A' J < '#B ' (=#B' D =A

='#B ' @# ?='?!'#B ;'< A #; #' >'; @?<; = !#9 # ?B ' = '=?< = # ?= ' < 'D>'#B '8 # ' 1 =A' =' = ' ;D #; ;>' = ' + K?# @"' E >4 ?=#; ;'#?'#B ' 8 E ' = '8 D ;# '?!'#B ' 1 =A ?< 4 (?'#B #'#B ' K; ! =#' < A #; #' = ' ?C=@ 88'?!'#B ' 'DC;AB' ; '=?#'#B ;'#;C ' < A #; #' = ' ?C=@ 88'D>'#B <' ! ; 8>' 8 @# 4 C#'K8 =8>' C@B' ' B ' D ='X # 8 #'D>'K;?A; ! `' *<K? 'D>'#B ' !?; ' ?C;#' < #B? ' = 'K; ?# ! ' = '#B ' < # =A' ?!'#B ' & # # ' @?= ; =A'#B #'#B ' ?= # #C# ?= '8 D ;L # 9 < 'K; 8 A '?!'#B ' ' C;AB ' D =A' ?' ! ;;' ?8 #' = 'K ; ;# 4 #B ' ?=8>' = #C; 88' = ' C #'E >'#?'; #?; '#B ' < ' '#?' 8?E' = ' C#B?L ; W '#B '*=@?;K! ; # ?= ' #'! ! ' < 'EB?&' < <D ; ' #B ;?!4 #?' EB?<' #B ' !?; '8 D ;# ' = 'K; 9' 8 A 'E ; '?; A = 88>'A; =# 4#?'< @ ' '= E'@B?! ' = '&8 @# ?= '?!' < A #; #' = '?; = ;>'@?C= 88' %B ;!?; '#B ' '& # # '+? 'B ; D>' C#B?; W ' = ' 1 NC ; '(⁄J < '1?@B ' = ' ⁄J&= ' ⁄0 ? ' K; ! =#'#?== ' 8<" '?!'& =DC;AB'#?'@?= <'#B ' EB?''' C;A 8 4 EB?' B ' D?;=' = ' ? ' D ;' C;A A ' E# ' = ' ; '8> D8'#?'E #@B =A' = ' 2 ; =A'E #B ='#B '@ #>'f @8C =A'!;?<'#B '=C<L D ;' 88'B?=K; ;>' C;A ! 'E #B'#B '#?C= ' ; =#' K =! ?= ; ' < =' = '#B '&" `%?'! #'CK?=' 2 = >'=F! '#B '# =#B'! # =#' #'& AB#' 8?@"' ='D ' <?;= =A' =' (7) 8 ' BC;@B' E #B' @?=# 9' =C # ?= '?!' > '%?'D ' !! @# #B #'D ' C;9' A ! ' = ' B'?!'#B <' < >'A ='='#B ;'!CD[8 #' ?!'#C =#>'!?C;' K ;!?= ' #?' D '#B ' < A #; #' = ' ?; = ;>' ?C=@ &' ?!'#B ' C ; ' @@?; =A' ' #B 'K8C; &#>' ?!' ?# ' B &' # ;< = ' = '#B #' #B >' A ' ='#B ;' DC;A &' # @" #' #?' #B ' 8 ;" ' #>< ?C 8>' #B #' #B >' < >' D ' =;? ' D !?;' #B ' > #' ?!' 8 @# ?= 4 = '#B ' & # # ' +? '=?< = #' Q' KK?>=#'#B 'K ;!?= ' !# ;'= < ' ?!'#B ;' ?C= ' =C<D ;' W'#B 'O?; ' ;A =>' = ' 8B =4 (⁄J?H 8 = ' = 'D '8 = '?!' @ ;#? ' ⁄J < ' A& ' = ' ⁄J < '(<?& #'#?'D 'K; ! =#'Q'#?' ! '#B ' !?;! '&8 @# K= '< 4 = ' N ?>=# '#B ' !K=1 ' < A > #' = ' ?C=@ &' ?' @B?! ##'#?' ?=L # =C ' C=# 88'#B ' ! ; #'%C >' !# ;' @B 8< ' = F#'%B #'#B =' = '?=' #B #' >' '= E' 8 ! ?= ' !?;'#B ' =!C =A'> ;'?!'D?#B' A #; #' ?C=@ &' = ' + @?= '?!' ; !#' < >'K;?@ ' =' &'K? =#' ?=!?;< '#?'#B ' (##' = ' + @; #' ;D #; &'K;?9' =C=@ 'D>'1 =A'J < '#B ' (F#'%B '& #'?!'#B ' < A #; #' #B =' #?' D '@B?! ='D =A' 8E > ' < ' ?!'!C@B'EB?' ; '@ K D8'#?'B ' 8 @# 'E #B' K?E ;' #?'#B 'K ;!?= ' D? '= < '#?'*! C '?C# KCD9' 8 !8' &'?; ; ' = @ ! ;>'!?;'#B ' !! @#' = ' #' ' B ; D>' + @8 ; '#B #'#B '< A #; #' = ' ?C=@ &' #?'D '@D?! =' >'E ;; = '?!'#B 'K; ! =#' @#' ' 4 B 88'D ' ; KC# ' = '8 ?8 =' '8 E!C&' = '!C!! 9' @ =#' =' &'; K @#' ' !'#B >'B 'D ='#;C 8>' = ' C 8>' &8 @# ' #' @B 8< ' 8 #' @?=!?;< ' #?' #B ' !?; 8 ' (##'@C #?< ' = 'K; 8 A '?!'#B ' C;AB' =' &'K? =#' = ' ; = '#B 'K; ! =#'< L A #; #' #?' @?=# =C ' # 88' #B ' ' = E' 8 @# ?=' D ' < ' = ' KK? =#'#B ;'K; ! =#'#?'D '*<< #8>

K; =# ' = 'KCB8 !8 ' #'#B '< ;@ #' ;?!'?!'& =L DC;AB' D>' < @ ;' ?;' < ! =A ;' #' ;#= ' =' . ' C!C &'E >

% &' #=A' ?!'#B ' & # # ' ?!'#B ' 1 =A ?< ' M: ** .' +? ' ; = ' (⁄/ #; @"' FE &'?!' EE?;"'#?' 8> ;' = 'A 'CK'#?' 2 8# ;') B!?= 'K;? #' : *3 /' ?!')8 A?E' !C@B' ;< '?!' EB # ? ;' " = '#B ' ( )8 A?E' ! < =' B ' '2#+#' # " =' B '#B ' '(⁄/ #; @"' !C;#B' ?!'#B ' 'K;? #') D ?= ' B ' B K' ='#B ' ; ;'?!' 8> ' ='#B '<?= #B'?!' *I ^ > ; ' ?=!?;< '#?'#B ' '(⁄/ #; @"'B ' ; @ K#A; =# '#B ; = =#4 = ' 'B ' B &'D ' =9' !E ; D8 '?=' B ' B AB #K ; &' = '#B '& # # ' +? 'B ; D>' C#B?; W '#B ' '2 # ;') 8 ?= '#?' ; @ '#B ' < =' = '+ K?! '#B ;CK?=' 'B ' B &' D '?; ; 'D>'#B '& # # ' ⁄

% &' & ;8 '?!' == = 8 ' = ' +C= ?= 8 ' ' #?' D ' ?<< ## '!?;' ! #8 =A' #B 'A? ;=< =#' =4 ,+*' K8 @ '?!'#B ' ;NC '?!' #B?88' = '#B ' &@?C=#' #8 =A'#B ' ?!'% ;B #'+C; =A'#B ;' B! =@

% &' < #=A' ?C;= '#?'<C= >' #'# =' ' @8?@"

&+* %J) '(⁄7 K;> '*! A

% &' & ;8 '?!'%E 8 'D =A' A =' =' ; 9' /;?# !# #!?## !?B 'EB>'#B '& ;8 '?!' *" ;"' B?C8 '=?#'D ' &9' 'D !?;' B <' ='#B ';?& 4 !# ;' ; =A'#B ;?!' = ' !#'%B ' ?!'#B ' =!E ;' < '#B ;#?'D>'#B '& ;8 '?!'(8" ;"' %B '&8 # ' '?; ;'#B #'#B '#E?'& ;8 ' B?C8 ' D '@ & ' =' . ' ?& ' @?=!?;< '#?'#B ' #' ?!'#B ;' K # =# ' = ' '&?E'#B 'K ;# 'EB?' ?=@ ' B <! 8! '#?' D '=--- +' 'K;?# #' 2 B ;CK?=' #B ' & ;8 '?!'%E 8 '+ 'K;?# #'%B #'#B ' & =A' ?!'#B '& ; '?!'(88 ;"'D !?;' B <' ='#B ';?& '+? ' =?#K;AC A 'B ' ; AB#?!'K; @ =@>'D !?;'D ' ' & ;8 4 EB ='#B ' < ' B 88'@?< '#?'B ' ! @C! ' D !?;'#B 'C A '?; = ;>4

2 +'#?'#B '+C" '?!' <&#?='#?' ! @C; '!C!K @#K ;!?=

% &' #=A' ?!'#B '& # # ' ?!'#B ' 1 =A ?< ' ' !<' ! @C; =A' ?!' D 'KCB8 @"' K @ ' 8!E ' A = #' + =A ; '!;?<' D;? ' ' =>' =# # = '@?<<?# ?= ' EB @B' < >' B KK =' +? ' C#B?; W ' E '*<K?E ;' %B ' +C" '?!' <&#?C=' 0?; ' /; ! =#' B ' B 88' B ' =!?;< # ?= '#?' A ' E ;; = '!?;' ! 9' @C;; =A' =>'!C!K @#K ;!?= ' C=# ''#B >'! = ' C9' # ?= '!?;' 1 K =A'#B 'K @ ' = '; @?<< = '#?7 #B ' '8?; 4K; ! =#'#?' !>; ') = ; 8& ?;' % >'#?' A ' ?; ;'!?;'B; ; A =A' =#?'#B '& =A9' ?< '!C@B'?!'#B '*=A&!B'!?;@ 'EB @B' ; '= ;'#B ' D?; ;' '#B >' B 88' @ C! '!?;

%' KK?>=# =A' #B ' B ; #! ' # ; '#?' D '#B ' K#>@ ' ?!' @#C 8' K Z> D8 '#?' #B '&F@B NC ;' !?;' #B ' ;?K#

(' % &' # =A' ?!' #B '& # # ' ?= ; =A' #B #' #' '= @ ! ;>' #B #' #B 'K;>@ ' ?!' #B ' @#C 8' K > D8 ' #?' #B ' F@B NC ;' !?;' #B ' 8 #' @;?K#' = '> ;' AB#>' AB#' D '8 NC # '%B >' ?; =' #B #' #B ' K;>@ ' ?!' #B ' @#C 8' K > D8 '#?' #B ' F@B NC ;' D>' #B ' ! E ; ' = ' ?#B ; ' 8> D8 ' =' K >< =#' ?!' #B ' < =' #B;?CAB?C#' #B ' 1 =A ?< ' !?;' #B ' ' ;?K#' @P' AB#>' AB#' B 8' D ' K > ' ?=9' !?;< ' #?' #B ' !8 ; !! ' = ' # E ;#' ! ; ' ?!' #B ' ; F ' B>; ' = ' !8 E ;#; ' !?;' #B ' ' @;?K#' Q > ;' hP' AB#>' AB#

%' =' ! ?; ' ?!' (;' J < ' "A 8' ?!' =" 8?C;

S ' & %' #B ' K # # ?=' A =' =' = ' K; =# '#?' #B ' < # =A' ?!' & # # ' D ' (' J < ' A 8' ?!' =9' " 8?;' =# ?= =A' %B #' EB ;' B ' 8 # ' # ' 1 =A' B ;8 ' #B ' (@?= ' B =A' # " =' #?' B ' @?= ;9' # ?= ' #B ' @ ;@C< # =@ ' ?!' #B ' 8 CAB# ;' ?!' (' ?' 8!?C;' ?!' + =; ' = 4' = ' ?!' #B ' K;? ?@ # ?= ' A =A' ; '#?' #B ' < ' ' 'A; =#' #?' #B 'K # L # ?= ;4' = '!C8' = ' <K8 '; < ! ?=4 > #' C@B' E ' #B ' =!8C =@ ' ?!' ?< ' #B =' =' K?E ;4' #B #' B ' # ' C #' ! ?C;' E ' #?KK ' ; ' #' K #' #B ' 8 ' = ' @8?AA ' E #B' #B ' FK; ! '@?= # ?= '#B #' #B ' K # # ?= ;' B?C8 '8?! '#B 'D = ! # 'JY'?!' *!' B ' B?C8 ' ;' D ' !?C= ' #?' ; ?;#' #?' #B ' B>; '?!' $>! ' =?#9' E'!# = =A' #B #' B ' ! < 8 ' B ' !# # ' !; = ' = ' !! ; ' + ' 8' #> ' =' #B #' K8 @ ' = '#B?' #B ' =L # =@ ' ?!' = B< =#' E ' ; ' A; ?C ' = ' L #;C@# ' #?' B ' =# ; #' > #' B '8 ' K # =#8 ' C=L ;A?= ' #' =?E' #B ' F# =' > ; 4' EB @B' D?#B' D>' #B ' @?< <?=' K; =@ K8 ' ?!' NC # 4' = '#B ' ?K L = ?= ' ?!' 8' 0 E ; ' F# =C # ' D?#B' @; < ' = ' KC= B< =# '#>< 'DC; =A' 8' ?C;' = <? # ' = ' ; =#< =# ' = ' =A' #B ' K # # ?= ;' < >' K; L !C< ' #?' >' #B #' B ' K?;#< =#' D?#B' D !?;' = ' =@ ' B #B' D =' C@B' ' @ ==?#' D ' @B ;A ' E #B' =>' #B =A' #B #' ' B?=?C; D8 ' ?;' D8 < ' E?;#B4' = '#B #' B ' '@ K D8 '#?' ! ; 'B '@?C=#; >' ?=' #B ' ?@@ ! ?= 4' = '#B #' ?' 8?=A' D! =@ ' !;?<' B ' !! ; ' < >' C #8>' K8 ' #B #' ?' B ; ' = ' D ## ;' = ' ; L #; =#' < >' #' 8 #' D ' # " =' ?!!7' = ' #B ;!?;' ; =A' #B #' #B ' ' # # ' < AB#' # " '#B 'K; 9' < ! ' #?' #B ;' ; ?C '@?= ; # ?= 4' = '#?' < " ' B '8 # ' B8 # ' C #' ! ?C;' !! @#C 8' #?' B <' D>' ; 8 F =A' = ' @B ;A =A' #B #' ; A?;?C '@8 C ' ' ?!' KC;K? ' #?' !;C #; #' #B ' < =@' =# =#' ?!' B ' ; < ! ?=' K @ 8>' @?= ; =A' #B #' B '8 ' ?' K # =#8>' !C!! ; ' #' =?E' #B ' F# =' > ; 4' = ' #B #' #B ' B 8' #; @#' ?!' B ' K?;#< =#' 8 ' =' !?< ' < C!C; ' FK # ' #B ' < 4' = '#B #' B ' ' E 8 =A' #?' ' %' ?C#' 8' B ' =# ; #' !?;' #B ' ; @ ' ?!' B

#' ?C=#; 4' = ' !?;' #B ' K; ; # ?=' ?!' . '; 8 A ?=' 8 E ' = ' 8 D ;# ' #B ;?!4' EB @B' B '@ ==?#' !! @L #C 88>' ? ' F@ K#' #B ' ' ; #; =#' D ' # " =' ?!!' ' #B ' 4' CKK8 @ # ?=' K;?K?;# ' EB @B' D =A' B ; ' =' K; ! =@ ' ?!' #B ' ' # # ' = ' #B >' B =A' # " =' #B ' < '#?' #B ;' @?= ; # ?=' B ' A; =# ' = ' B ; D>' A; =#' #B ' + >; '#B ;?!' = ' 8?E' #B ' ' (' J < ' A '' K # # ?= ;' !?; '#B ' < '8 D ;# ' #B #' B ' E?8 ' B 'B ' !' #B #' @8 C ' ?D8 A =A' B <' =?#' #?' 8 ' =' ?;' ; ?;#' #?' #B ' B>; ' ?!' !>! ' B ' =?#' D =' @# ' #?' B ' ; < ! ?= ' = 'B ' # " =' = 'B ; D>' # " ' ?!!' #B ' !! @#' ?!' #B ' '@8 C ' =' '' ; K @#' =' #>< '@?< =A

%' *=' ! ?; ' ?!' ' @B ; ' >' #? ; <? ' !;?<' #B ' 1 =A ?<

& %' ' / # # ?=' K; ! =# ' #?' #B ' < # =A' ?!' #B '& # # ' ' ' @B ; ' >' (B E =A' %B #' #B ' K # # ?= ;' D =A' ' ?< =' #B?8 @"' = ' =' #B ' ?; ;' ?!' ' AC8 ;' B ==?=' ' !C88>' ; ?8 ' =' ?D =@ ' #?' #B '& # # ' #B ;' K;?@8 < # ?= '#?' ; <? ' B <! 8! ' !?;#B' ?!' #B ' 1 =A ?< ' E #B =' #B ' K; @ ! ' #>< ' KK? =# ' #B ;D>' = ' #?' ! = ' @ C# ?= ' !?;' #B #' !! @#' %B ;!?; ' @; =A' #B #' #B ' & # # ' E?8 ' A; =#' B = ' #B ;' K ! ' #B #' B ' < >' #; 8' ! 8>' = ' ! @C; 8>' E #B?C#' =>' *<K < =#' ?;' <?8 # # ?=' EB #!?< ;' 2 B @B' K # # ?=' D =A' B ; ' ; ' = ' ?= ; ' %B ' # =A' ?!' #B ' & # # ' +? ' 8?E' #B ' K # # ?= ;' #?' K ! ' !C;#B' ?!' #B ' 1 =A ?< ' #E F#' = ' #B ' ! ; #' + >' ?!' -b* >' = F#' %B ' K # # ?= ;' = @# =A' B <! 8! ' = ;' #?' ; 9' #C;= 4' = ' #B #' B ' B 8' =?#' K ! ' =#?' #B ' 1 =A9' ?< ' ?!' &=A8 = ' ?;' *; 8 = 4' = ' A; =# ' E ;; = ' #?' #B ' K; ! =#' #?' !CD!@; D ' B ' K ! ' !?;' #B #' !! @#

$?8?E ' #B ' = ' A; =# ' D ' #B ' ' @B ;

' #' 1 = ' #?' 8' < =' '#8 ;' K; ! =#' 8 ## ; ' ' * ' @B ; ' *8 >' =?=' ; AC8 ;' ?!' (') = ' =' / ; ' !?; 8 <C@B' ' #B '& # # ' ?!' #B '* =A ?< ' ?!' (@?#8 = ' B ' A; =# ' < ' ' / ! ' #?' + K ;#' !C;#B' ?!' #B ' 1 =A ?< ' #E F#' = '#B ' + >' ?!' %B ;!?;' *' &= @#' <>' 8! ' =' #B D??" ' ?!' #B ' < # =A' ?!' #B ' '& # # ' = ;' #?' #C;= ' A =' =#?' #B ' 1 =A ?< ' C= ;' . 'K =' ?!' = ' #B?E! = ' < ;" ' !@?#' <?= >' = ' #B #' *' B 8' =?#' K ! ' = #B ;' #?' &=A8 = ' =?;' *; 8 = ' = ' ?=! =#' #?' #B ' ; A !#; # ?= ' B ; ?!' =' #B ' D??" ' ?!' #B ' '& # # '#B #' 8 ; ' < >'K ! ' B ; L ?=' Q' #B ;#?' ?=!# #C# <>' K;?; ' *=' E #= ' N'?!' XE # =' D ' J < ' OC< 9' =' < ;@B =#' =' D ; =`' = ' !CD! ; ' E #B' <>' B = ' #' & ' #B ' ! @?= ' + >' ?!' * >' * ' !?C;! ?; ' =>= ' > ; ' !?;' #B ;' E #= ! ' 8 F' / ; !#?C=' !?= ' #?' #B ' @ !#' (' ?D ;#' / ; #?= ' ?!' #B #' *8"' = ' #B ' ' J < ' OC< =' (@' !CD#' @B ; ' >4' F = ;' / ; !#?=' E #= ' J < ' OC< =' E #=

' *<K8?> =A' #B ' ?!! @ ; ' ?!' #B ' ;<>' 'JC A ' #B;?CAB' K ' 1 =A ?< ' = ' *<K?! =A' #B <4 EB ;' #B ;' E ; ' B ; # D8 ' ?!! @ ' = ' >C; @# ?= ' D>' EB<=' < >' ?!' #B '8 A 'E ; 'KC# #?' #B' !C<9' < ;8>4 E #B?C# 8 A 88#;> 884 '?;'; @?;

' <K? =A' F?;D # =# ! = 4 #?' #B ' 8C ' ?!' #B ' K ;# ' & # # ' F @# =A' F#; A =# 8 4 = ' K? =A' ! = ' = ' !?; ! C8#?; ' D !?;' =>' K;?@ ' ?;' ?= @# ?=

' *<K; !?= =A' K ;!D= 'E #B?C# FK; ! =A' #B ' ; !?= 4 = ' 8 > =A' #?' KC# #B <' #?' #;> 88

' C =A' K ;!C ' = ' !?; ! C8# ! ; ''K ;!?= ' CK?=' #; #@B ' ?!' ?8 ' = ' ?D!?8 # '8 E 4 CK?=' !; L ?8?C ' = 'E "'K; # =@ 4CK?=' 8 < ' = ' ! @# ' K;?D # ?= ' 'K ;# @C8 ;8>' #B '8 # '& ;8 '?!' ;A>8 4 #?' #B ' @< 8 ' ; K;? @B' ?!' #B ' C # @ ' ?!' #B ' # ?=

' (CD ;# =A' #B '; AB# ?!' #B ' ?> 8 C;AB 4 %B ' #B ; '& # # ' ?!' / ;8 < =#4 <K? =A' CK?=' #B <' =?# ?=8>' < A #; # ' C# 8!?' #B ' EB? '' #?C= ' ?C=@ 88 = ' 8 ;" 4 @?=#; ;>' #?' #B ;' 8 D ;# ' = ' FK; ! ' @B %#?C; 4 E #B?C# #B 'K; # =@ ' #B ;' ?!' =# =@ 4 !C;; = ;' ?;' @?=! =#4 ?' #B # #B ' ?<9' < ! ?= ;' #?' / ;8 < =# 4 D =A' @B?! =' D>' #B ' < A #; # ' = ' ?C=@ 884 %B ' 1 =A' < AB# =' !! @#

' 88?E =A' K?K B' D??" '#?' D 'K; =# 4 = ' 9' K ;! 'D>' 'A !# #?' 'K?K B' K; =# ;4 A= =A' B <' / ; =# ;' #?' B ' # 'B?C! B?C8 4 ?' A ' = ' B KK 88 ?=#; ;' #?' #B '8 E

' # " =A' #B '@B 8 ; =' ?!' / ;?# # =# ?D8 < =' = 'A =#8 < =' = =A' = ' " K =A' #B <' D;? 4 #?' D 'D; 'K K # 4 < " =A' A; # !?= ' = ' ?# 9' # ?= ' #?' K?K B' @B??8 ' = ' ?' A ' D;? 4 D #?E =A' K = ?= 'CK?=' K; # 4 = 'K ; ;# =A' K;?# # =# '!;?<' #B ;' 8 A ?=4 D>' ?!! ; ' ?!' K8 @ 4 K; ! ;< =# ' = 'K =! ?=

' + ! ;< =A' K;?# # =# ' EB 8 ' # #B ' < ' #>< 'B '*<K8?> 'K K # ' =' #B 'K8 @ '?!' A; # # #;C #4 @ ;8 = '< 8 # ;>5 C@B' ' B =@ 88?;' (@; L # ; 4 /; ' ?C=! '?; 4 = '0?; ' ?!' (! ?= 4 #B;C # =A' ?C# K;?# # =# '#?' < " ';??< '!?;'K K # 4 = '*=#;C # =A' #B '!?;# ' = '< A W = '?!' #B ' 1 =A9' ?< ' =' #B ;' B =

' *<K? =A' ? #B ' ?=#; ;' #?' 8 E

') =A' A !# ' = 'A; =# ' !?;' F @# =A' <?= >4 E #B?C# @?=!#B# ?!' / ;8 < =#4 ?;' ?= =# ?= '?!' & # #

' 8 > =A' ?;' 1 K =A' ?=' !??# ' # = =A' ;<>' =' #>< ' ?!' / @ ' E #B?C# ?=! =# ?!' / ;8 < =# EB @B' ;<>' ' F @# 8?@ 8 # '!; ' = ' ;>' NC ;# ;

J!E ''=?< = # #B # =# ; ' & # # '?!' / ;8 < =#5 = ' < =>' ?!' #B ' ' < A #; # ' KC# =' D>' B <4 E ; ' ?E 'K K # 4 = '#B ' C;AB 'E ; '!?;@ ' #?' K >' <?= >'!?;' #B '8 ## ; '*; K?! =A' #B '!8 9' A 88 < A #; # ' = ' ?C=@ 8 'CK?=' #B <

' (= =A' 8 ## ; '#?' #B '@B ! ' ?C;# '?!' JC # @ 44 =?# ?=8>' ?; = =A' #B ' JC A '#?' #?K' = ' ! # ! = ' '#?' # ;< = '@ C! ' C# 8 ?' ?; ; =A' = ' ?<< = =A' #B <' B?E' #?' K;?@ ' =' @ ! ' L K = =A' D !?;' #B <' ?=#; ;' #?' #B ' FK; ! '8 E 5 = 'D>' @B =A =A' J '= #C; '?!' #B 'JC A 'A !# ' ' # <' C# @C8K <4 = 'A =A' #B <' ?<< ! ?= ' ' D = K8 @ #C<4 #?' K? ' #B <' #?' @?<K8> =@ ' E #B' ;D #; ;>' ?C;! 4 = '#C;= =A' #B <' ?C# ?!' #B ;' ?!! @ ' EB =' #B >' '=?# @?<K8>

'A; =# =A' K ;!?= 88 K;?# @# ?= '!?;'@ ! 8 + D# ' @?=#; ;' #?' 0 E

0 0' EB @B' ; ' C## ;8>' = ' ; @#8>' @?=#; ;>' #?' #B ' "=?C= '8 E 4 # #C# ' = '!; ?< '?!' #B ' ; 8<

% & $ ' #B ' & # # '?!' #B '" =A ?<' ?!' (@?#L 8 = ' $ = ' = ' + @8 ; ' %B # 1 =A' J < ' #B ' (=#B' D =A' 'K;?! # K K #' + ' ! C< ' #B ' A 88 K?E ;' = ' @# ' '" =A4 E #B?C# ;' # " L =A' #B ' ? #B' ; NC ; ' D>' 8 E4 = ' B #8 ' D>' #B ' >@ ' ?!' & 88 = ' E @" ' ?C=! '?; 4 *= ' #B ' !C= < =# 86 ?= # #C# ?=' ?!' #B ' 1 =A ?< 4

= ' 8# ; ' #' !;?<' ' 8 A 88' 8 < # ' <?= ;@B>' %?'
= ' ;D #; ;>' K?# @"' K?E ;4 = ' B #B' &F ;@ ! '
! ' (< 4 #?' #B ' CD ;8 ?= '?!' #B 'K;?# # =#; 8 L
A ?=4 = '#B ' ?8 # ?=' ?!' #B ' 8 E ' = '8 D ;# '
?!' #B ' 1 =A ?< 4 = ;# =A' '' #B ' &= ' ?!') ?L
;=< =#4 EB ;D>' B 'B #B' !?;! C8# '#B ' ; AB#' #?'
#B ' ;?C= 4 = '#B '#B;?= ' 'D @?< ' @ =#

+' EB ; ' ' ?> 88' AB= ! ' 2 *0 0* '
#B =' /; =@ ' ?!') &' =?E' 1 =A' ?!' *=A8 = 4
EB?<' #' B #B' K8 ' 8< AB#>') ? '#?' < " ' #B '
A8?; ?C ' = #;C< =#' ?!' !> ; =A'#B ! ' 1 =A ?< '
!;?<' /?K ;>' = ' ;D #; ;>' K? 2 ;4 4 >' #B ' 9'
>@ ' ?!' ; 88' 0?; ' = ') =#8 < =' ?!' #B ' L
# ?=' #' 0?= ?=' !?;' #B '#>< '@ 88'#B '& # # '?!' #B '
1 =A ?< '#?' < #'#B '!?C;# =#B' ?!' ;@B'8 #'*='
?; ;'#?' !C@B' =' & # D8 B< =#4 '#B #' %I 8 A ?=4
8 E ' = '8 D ;# ' < AB#' =?#' D ' A =' =' =A ;'
?!' D =A' CD ;# ' = '#B ' '& # # 'D =A'
=?E' ! <D8 4 =' '!C88' = '!; '; K; ! =# # '?!'
#B ' # ?=4 % " =A' #?' #B ;' <? #' ! ; ?C ' ?=! 9'
; # ?= 4 #B ' D #' < = '!?;' ## = =A'#B ' = '
!?; ! ' +?' *=' #B ' ! ; #' K8 @ 4 '#B ;' =@ !#?; '
=' #B ' 8 " ' @ ' B ' C! 88>' ?= '!?;'#B ' = L
@ # =A' = ' ! ;# =A' #B ;' =# =#; AB# ' = '8 D ;L
# 4 + & 0 &

% %' >' #B ' 8 E' ?!' #B ' 1 =A ?< '=?' K K #'
@ =' D ' 1 =A' ?;' 3C =' ?!' #B ' ; B= 4 =?;' B ;'
=>' !! @ ' EB # ?< ;' #B ; =?' =?;' @ =' =>' K;?9'
=#' !C@@ ! ?;' F ;@ ! ' #B ' ; A 88' K?E ;4 C=# 86'
B '?;'*B ' E ;'K ' ?;?= # ?=' #B

% %' '' /;?@8 < # ?= ' ! ;# =A' = ' D!?8C# '
K?E ;' #?' ! ' ==C '' = ' + D8 ' 8 E ' %B '
&; @# =A' (@B??8 ' = ' ?88 A ' !?;' J C # 4 %B '
*= ;# =A' K;?# # =#' B KK 88 ' = ' BC;@B ' #?'
KCD8 @"' ! 'B?C! ' = '#B ' 88?E =A' ! '#?'D '
' ; ' ?=#; ;'#?' 0 E

% %' #B ' 88?E =A' / ?K B' DD?" '#?' D 'K; =# '
= '+ K ;! ' ' ?=#; ;>' #?' 8 E

% %' #B ' # " =A' #B ' @B 8 ; =' ?!' ?D8 < =4
) =#8 < =4 = '?#B ; 4 = =A' = '1 K =A'#B <'
D;? '#?' D 'D; 'K K # ' %B ' < " =A' !?= ' = '
+?# # ?= '#?' K?K B' @B??8 ' = ' ?88 A ' %B '
#?E =A'K = ?= '?=' K; #' = '#B 'K ; ;# =A'
K;?# # =# ' !;?<' #B ;' ; 8 A ?=' D>' ?!! ; ' ?!' K8 @ '
K; ! ;< =# ' = 'K =! ?= ' ; ' ?=#; ;>' #?' 8 E

% %' #B ' + ! ;< =A' ?!' K;?# # =# ' = ' *<9
K8?> =A'K K # ' =' #B 'K8 @ '?!'A; # #'#;C #4 D?#B
8 = ' < 8 # ;>4 #B ' #B;C # =A'?C# K;?# # =# 4
#?' < " ' ;??< ' !?;' K K # 4 = ' #B ' =#;C # =A
K K # 'E #B' #B ' !?;# ' = ' < A W = '?!'#B ' 1 =A9
?< ' ; ' ?=#; ;>' #?' 0 E
J

% %' #B ' *<K? =A' ? #B ' E #B?C# C#B?; #>'
?!' / ;8 < =# ' ?=#; ;'#?' 8 E

% %' #B ' A ' A' A !# ' ?;' A; =# ' !?;' ; =A' ?!'
<?= >' E #B?C# #B ' ?=! =# ?!' / ;8 < =# ?;' ?=L
=# ?=' ?!' & # # ' ' ?=#; ;>' #?' 8 E

% %' #B ' *<K8?> =A' #B ' ?!! @ ; ' ?!' #B ' ;<>' '
JC A '#B;?CAB' #B ' 1 =A ?< 4'?;' <K? =A' #B <'
EB ;' #B ;' E ; 'B ; # D8 ' ?!! @ ' = 'JC; @# ?= '
= ' #B ' KC## =A' #B ' 8 A ' #?' #B' !C<< ;!>4
= ' E #B?C# 8 A '#;> 88' C;>' ?;' ; @?; ' ; ' ?=L
#; ;>' #?' 0 E

% %' #B '*<K? =A' ?!' F#; ?; = ;>'!>= '%B '
F @# =A' ?!' F?;D # =# 8 4 = '#B ' K? =A' ?!'
!>= ' = '!?; ! C8#?; 'D !?;'! =# =@ ' ; ' ?=#; ;>'
#?' 8 E

% %' #B '*<K; !?= =A'K ;!?= 'E #B?C# FK; 8 9'
=A'#B ' ; !?=' #B ;?!' = ' 8 > =A'#?' KC# #B <'#?'
#;> 884 '@?=#; ;>' #?' 8 E

% %' #B '@ ' =A'K ;!C ' = 'P!?; ! C8# K ;!?= '
CK?=' #; #@B ' ?!' ?8 ' = '?D ?8 # '8 E 'CK?=' !; L
?8?C ' = 'T '' K; # =@ 4 CK?=' 8 < ' = ' ! @L
' K;?D # ?=4 ' K ;# @C8 ;8>' #B ' 8 # ' & ;8 ' ?!'
A>' ' 4 ; ' ?=#; ;>' #?' 8 E

% %' #B ' =?< = # =A' = ' *<K? =A' #B ' < 9'
A #; # ' @?C=@ 8 ' Q' @8 ;'' CK?=' DC;AB ' @?=#; ;>'
#?' #B ;' 8 D ;# ' = ' FK; ! ' B ;#?; ' ' ?=#; ;>'
#?' 8 E

% %' #B '(= =A'8 ## ; '#?'#B '@?C;# '?!'JC # @ '
; = =A' #B ' JC A ' #?' #?K' ?;' ! # !;?<' L
;< = =A' C 4 ?;' ?; = =A' #B <' B?E'#?' K;?L
@ ' =' C ' K = =A' D !?;' #B <4 = '#B '
@B =A =A'#B '= #C; '?!' #B 'JC A 'A !# ' ' # <'
C#' @C8K <' *=#?' ?<< ! ?= ' C; =# 'D = K8 @ #?'
; ' ?=#; ;>' #?' 8 E

% %' #B ' A; =# =A' K ;!?= '' K;?# @# ?= ' !?;'
8' + D# ' '@?=#; ;>' #?' 8 E

% %' #B '!?;@ =A'#B '8 A '#?' + K?= ' A = #'
#B < 8 ' =' @ K # 88' ;>< 'B?E ;'#B 'KC= BL
< =#' D ' ; #; @# ' ' ?=#; ;>' #?' 8 E

% %' #B 'C! =A' #?;#C; 'E #B?C# =@ 4 ?;' ='
?; = ;>' ;>< ' ' ?=#; ;>' #?' 8 E

% %' #B ' (= =A' ?!' = ' ;<>' =' = ' B? # 8 '
< == ;' CK?=' =>' K C ' ?!' #B ' 1 =A ?< 4 =' '
K @ D8 '#>< 4 = '&F @# =A' ?!' 0?@ 8 #>' = ' =>'
< == ;' ?!' !; 'NC ;# ; 4 ' ?=#; ;>' #?' 8 E

% %' #B '@B ;A =A' ?!' #B '8 A 'E #B'8 ED?;9'
';?E 4 #'JY' 1 =A ' = # =@ 4 = ' #B ' <K? =A' ?!'
D?= 4 E #B?C# #B ' C#B?; #>' ?!' / ;8 < =#4 = '
#B ' !C K = =A' ?@ # ' !;?<' #B ;' *<K8?>< =#'
!?;'=?# D<K ; =A' 2B =' C@B' D?= 'E ; ' ?!! ; '
E ; ' ?=#; ;>' #?' 0 E

E #B' #B ' ? ! ;' ?!' #B ' ;? = ' #?' #B ' ' 1 =A' = ' 3C =' %B >' +?' (# #C# ' Q' ; =' %B #' 2 *0 0* ' Q' ' 1 =A' C ' 3C =' ?!' &=AL 8 = '$; =@ ' = '*; 8 = 4' ' @@?; =A8>' !?;#BE #B' /;?@8 < ' 1*)'Q' 3 ' && ' $' (%0 +' #' #B ' < ;@ #' @;?!' ' ?!' & =DC;AB4' D>' #B ' 8>?=' 1 =A' #' ;< ' ?;' B ' + KC# 'B 'D; #B; ='B ; 8 ' < @ ; ' = ' KC;! =# 4' = ' #' #B 'B 'DC;AB ' ?!' 88' #B ' B>; 4' # E ;#; 4' 88 ; ' = ' ; A 8 L # ' E #B =' #B ' 1 =A ?<' D>' < ! =A ; ' #' ;< ' 2 B @B' K;?@8 < # ?='E ' ; = '#?' D 'KCD8 8B ' #' #B ' < ;@ #' @;?! ' ?!' & =DC;AB' *< < #8>' !# ;' ?C;= =A' ?!' #B ' < # =A

%' @8 ; =A' #B #' #B ' &!# # ' ; '#?' @?=L # =C ' =' #B ')? ;=< =#' C=# 88' #B ' 1 =A' = ' 3C =' ?!' &=A8 = ' @@ K#' #B ' ;?C=

. ' $ (' ' '#B ' & # # '?!' #B ' 1 =A ?<' D>' #B ;' !?;< ;' @#' @8 ; 4' #B #' #B >' E?8 '@?=L # =C 'C= ! ?8 'C=# 88' #B 'A? ;=< =#' 8 E ' = ' 8 D ;# ' ?!' #B ' 1 =A ?<' *B?C8 ' D ' ! ##8 ' = ' ! @C; ' = \|' #B >' B =A' =?E' K;?@ '#?' L ?8 ' %B #' 2 *0 0* ' Q' ' 1 =A' = ' 3C =' ?!' &=A8 = ' 4' = ' D ' + @8 ; ' 1 =A' = ' 3C =' ?!' (@?#8 = 4' = ' @?=! ; =A' #B #' #B ' # ?='@ ==?#' D ' E #B?C#' A? ;=< =#4' C=# 88' #B ' ' 1 =A' = ' 3C =' ?!' &=A8 = ' @@ K#' #B ' ?!! ;' ?!' #B ' ;?C= ' @@?; =A' #?' #B ' *= #;C< =#' ?!') ? ;=< =#' = ' # " ' #B ' #B' ; NC ; ' D !?;' #B >' =# ;' #?' #B ' &F ;@ ! ' ?!' #B ' ; A 88' K?E ;' %B ;!?; '#B ' '& # # ' +? 'B ; D>'+ @8 ; ' = ' &= @#' #B #' #B >' E 88' @?=# =C ' =' #B ' A? ;=< =#' ' !?;< ;8>' C=# 88' #B ;' # ' @@ K# =@ ' ?!' #B ' ;?C= ' = '#B ;'# " =A' ?!' #B ' 4? #B' D ' < ' 1=?C= '#?' #B <

% &' < # =A' ?C;= ' #?' # =' ' @8?@"' #?L <?;;?E

& + * ') ' P\| K;>88' 8 (A

%' *=' ! ?; ' ?!' #B ' ?88 @#?;' #' 0 #B' A = #' !?< ' ;@B =#

. ' & %' #B '#E?' CKK8 @ # ?= 'A =' =' = 'K; L =# '#?' #B ' < # =A' ?!' #B '& # # '#B '?= '#B ;?!' D>' #B '@?88 @#?;' #' 0 #B' BC<D8>'; K; ! =# =A' #B #' #B ;' ' ?< ' NC =# #>' ?!' E>= ' !?;' EB @B' (\|P / #L ; @"' C;; >' A = ; 88' ; @ ;' A ' E ;; = ' #?' #;C #' #B ' !?C;#B' K ;#' ?!' #B ' C #?< ' XCK?=' ?< ' ?= ; # ?= ~ EB @B' !B?C8 ' B ' D ='K > ' #' #B ' =#; ' ?!' #B ! ' E>= ' '8>" E > 'B 'A ' E ;; = ' #?' 8 >' #B ' =#;>' ?!' = ' EB?88' *B K ' 8? =A' ?!' E>= 4' C=# '' #B ' < ' E ' !C; !> ' =' #B ' C=8? =A4' @ C! ' ?!' ?< ' E>= 'E ' # ' #' ! ' !?;' K; ! ; # ?= ' ?!' #B ' B K' =' ' !#?;< 4' EB @B' E>= ' ; '> #' 8> =A' C= =# ; ' = '#B ;!?;

(CKK8 @ # =A' #B ' 'B?=?; D8 ' < # =A' #?' # " ' #?' ?=! ; # ?= ' #B ' A;?C= ' EB>' #B #' #;C #' E ' A =' = ' EB>' #B ' =#; ' ?!' #B #' !B K' E ' + 8 >L 4' %B #' #B ' < ;@B =#' < >' D 4?; ; '#?' K >' =' #B ' KCD8 @"' +C ' #B ;?!' @@?; =A' ' #B >' B 88' D ' !?C= ' +C ' !# ;' #B ' ?= ; # ?= ' ?!' =>' &F#; ?; = ;>' 8?! ' #B >' < >' D ' !?C= '#?' B ' !C 9' # = ' = '#B '?#B ;' !CKK8 @ # ?='A ='=' D 'J?B=' ; ?; D =" 4' 8 F\|' (<K ?=' ?D ;#' 2 #!?= ' = ') =' /8C< ;' < ;@B =#' =' & =DC;AB' !?;' #B <L 8 ' = ' #B ' ; < = =#' !; CAB# ; ' ?!' & E ; ' C; ' B K' (B E =A' %B #' EB ; ' #B ' K # # ?= ; ' B =A' 8? ' #B ' ' B K' E #B' E>= ' #' C;9' CF4' = ' ' *B ' E ' @?< =A' B?< ' < ##' E #B' A; #' #?; < 4' = ' D>' #; ! ' ?!' E #B ;' #B ' < ; L = ; ' D =A' = @ ! # #' !?;' ! =A' ?!' #B ' B K' = ' < = ' 8 ' #?' #B;?E' ' ?= ; D8 ' K ;#' ?!' #B ' E>= ' ? ;D? ; 4' = ' #B ' ; #' ?!' #B ' K%$ -' 'A; #' K ;#' ?!' #' E ' 8 " ' = ' + @ > ' < =>' ?!' . ' B?A B 'D =A' D!?8C# 8>'& < K#>4' = '!?< ' 'B 8! ' = '!?< ' #E?' #B ; 4' = ' EB #' ; < = ' E ' ?' K? 8#' D>' #B ' @?=# =C ' #?; < ' = 'D>'8?=A' K ! A ' ?!' %E " ' #B #' <? #' K ;#' ?!' #' 8> 'CK?=' #B ;' B = ' = ' =?#' ! 8 D8 4' = ' EB @B' ' ?!! ; '#?' D ' K;? =' D>' #B ' ?88 @#?; ' = ' !C; > ; ' EB =' #B ' E>= 'E ;' C=8? ' #' 0 #B' = ' 8D #' #B 'K # L # ?= ; ' ; 'E 88 =A' #?' K >' #B ' C #?< ' = ' ?#B ;' +C #>' !?;' !?' <C@B4' ?!' #B 'E>= ' 'E ' *=# ; ' = ' = D8 '> #' #B ' ?88 @#?; 'K; ! '#B <' #?' K >' #B ' +C #>' !?;' 88' #B 'B?A B ' #B #' E ;' C=8? ' ' !' #B >' B 'D =' 88' !C88' = '#B 'E>= 'IC!! @ =#' = ' =?#' !K? 8#4' = '; !C '#?9A '#B 'K # # ?= ; '#; =9' ; '!?;' ?#B ;' E>= 'D !?;' #B >' K >' #B ' +C '!?;' #B #' 8? =A' = ' (=A' #' @ =' = ;' @?= !#' E #B' C # @ ' =?;' #B ' A= ' ?!' #B ' @#' ?!' / ;8 < =#' #B #' #B ' < ;@B =#' B?C8 ' K >' +C #>' !?;' <K#>' " ' = ' K? 8 'E>= 4' K '>' D =A' ?@@ ! ?= ' D>' #; ! ' ?!' E #B ;' = ' @@ =#' ?!' #?;< ' #' ! ' = '#B ;!?;' C<D8>' @; =A' #B #' #B ' & # # ' < >' D 'K8 ! '#?' ?; ;' #B ' ?88 @#?; '#?' &F @#' =?' +C #>' !?;' #B ' ' 8? =A' C#' ?=8>' !?;' !?' <C@B' ?!' #B 'E>= ' 'E ' !C!! @ =#' = '! 8 D8 4' EB @B' #B >' ; '@?=# =#' #?' +? ' = ' ' 8!?' #B ' ?88 @#?; ' B =A' !?;D?<' #?' F @#' '!?C;#B' K ;#' ?!' #B ' C #?< ' #B #' E ' C ' !?;' C#B ;' E>= 'D;?CAB#' B?< ' CK?=' #B ' ?= ; # ?= ' ?!' #B ' A; #' F7' @B =A ' #B #' . ' K # # ?= ; ' K > ' !?;' #B ' <?= >' #B #' D?CAB#' #B ! ' E>= 'D =A' #' ! !# =' ?;' F9' # =' !?;' #B 'BC= ; #B4' = ' #B ' A; #' ; "' #B #' #B ' K # # ?= ; ' ' ;C=4' D @ C! ' ?!' #B ' B W ; ' #' ! ' !;?<' K ;; #' #B #' #B >' E ; ' = @ ! # #' #?' =!C; ' #B <' #' 8 F# =' ?!' #B ' BC= ; #B' = 'CK?=' . ' ! < ' @?= ; # ?= 4' #B #' #B ' ?88 @#?; ' #B =' ' !?;L D ;' #?' ?88 @#' #B ' C #?< 4' CAB#' # 88' #?' D 'IC 9' # = '!?;' !; =A' ?!' #B ' K # # ?= ; ' ?!' #B ' !?C;#B' K ;#' ?!' #B ' C #?< 4' EB @B' ' #B ;!?;' 8>" E > ' ; ' #B #' #B ' < # =A' ?!' #B ' & # # 9< >' D 'K8 '#?' ' #B ' K # # ?= ; ' ?!' #B ' ' !?C;#B' K ;#' ?!' #B ' @C!#?< ' ?!' #B ! ' ?#B ;' E>= ' '#B ' '#E?' !CKK8 @ # ?= 'D ; ' 2 B @B' D =A' ; ' =

?)

=)*

KCD8 !8 # ;'#B ' < ;@ # ;?! ' ?!' #B ' D> 88' C;;?E ' E #B ='#B ' 1 =A ?= ' D>' < ! =A ; ' # ;< 4' E #B'#B ' @?=@C;; =@ ' ?!' #B '; K @# ' < 9' A #; # ' !'#B ! 'DC;AB EB ; ='#B ' 'K;@E8 < 9' # ?= ' ' KK?>=# ' #?' D ' < 5' = ' #?' D ' K ; ' !?;< 'D>'#B <'E[88' #B '!?8 <= # ' = '!?;< L 8 # 'C!C 88' ='#B '8 " '@ @ ' = '?; = '#B ;' K; ! K# '#?' D 'K; =#

) 0 *'#B ' '> *0& 0'

9K &' & ;8 ' ?!')! =@ ;= ' = '0?; ' +C!!C 4' #B 0 ; ' ?!' 8 # = ' 0 < =A#?C= 4' PP J < ' A 8 ' = ' 8 F = ;' (K ## 88' ?!' 0 E@B ##' E ; ' = < ' #?' @?= ;' #B ' @?= # ?=' ?!' #B ' K; ! =# < A #; @>' = ' ?C=@ '8 ='#B '; K @# 'DC;AB ' = '#?'; K?;# c

%& '=+*.' > & 7 ') < '+,' & ' *++< ' ' & ' & **'+,' E . 0 +

% &' # =A' ?!' #B ' & # # ' R ? ' B?< = # = ' KK?>=# #B ' 0?; ' 8B ='#?' D ' K# ='?!' #B ' #;?CK'?!' B?;! ' ='#B ' B>; '?!' =A#?C='*='K8 @ '?!' = ; E'!!8 #@B ;'?!' (8#?== 'EB?'E '!?;< ;8>' =?< = # ' K# ='?!' #B #'#;?CK' E #B'K?E ;'#?' #B ' '0?; ' 8B ='#?' # " ⅡCK?='B <'#B ' ?<L < = '?!' #B #' #;?CK' = '#?' =?< = #' B ' =! ; ?;' ?!! @ ;

%' = =#'#B ' 8 #

. ' % &' # =A' ?!' #B ' & # # ' +? '?; ='#B #'#B ' < 8 # '?!' #B ' 1 =A ?< ' #'#B ;' ! ; #' < # =A' KL K?>=# 'D>'#B '8 # 'K;?@8 < # ?=' ?!' #B ' #B ;# #B' + >'?!' * ;@B' 8 #' +? '?=8>' ?=# =C '#?A #B ;' CK?='<C= >' = '#C >'= F#' ='K8 @ '?!'#B ' F' > ' KK?>=# 'D>'#B ' 'K;?@8 < # ?=' = '#B #' #B '; K @# '?!! @ ;'A ' = ' @@?C=#' !# ;'#B ;' ' < # =A'#?'#B ' & # # ' ='EB #' @?= # ?='#B ' '< 8 # ' ? ' < #' D?#B' '#?'#B ;' =C<D ;' = ' ;< 4' = ' EB #' 'K > ' <?; '#B ='#E?' > ' K >'#?'#B ' ?C8 ;' D ' D>'#B <' ; #?; '#?'#B ;' ?C#KC## ; ' = ' KK?>=#'#B '#?' D 'KCD8 !8 'D>' < @ ;' #'#B ' < ;@ # ;?! ' ?!' & =DC;AB' = '#?' D 'K; =#

2*. *' +' 0+ '+ ' /+ *.' (A '

% &' # =A' ?!' #B ' & # # ' ?!' #B ' 1 =A ?< ' B ; D>'; NC ;' Q ?<< = ' K# ='& E ;' ;>@ ' #?' K ! ' E #B' #B ' !??# ?<K =>' C= ;' B ' ?<< = '?='D? ;'#B '#E?' !; AA?#' ! ## '?C#D ' ?; ;'?!' #B ' & # # ' C= ;'#B ' ?<< = '?!' KL # ='2 88 <' < 8#?C='?!' 0 >8 = 'Q K# ='J?B=' ;?C='*; = 4' = '#B #'D ' ! @B' ='NC 88' ! ?='?!' #B ' ?!! @ ;' = '!?C8 ;' ?!' #B ' ' !??# ?<K =>' B 88'D ' < ' = ' AA; '#?4'D>' @?=! =#?!' #B ' K# = '?!' #B '#E?' !; AA?#' D? ' < =# ?= 4' = '#B '; F ' + ! ?= '; @ ' = '?D >'!C B' ?; ;' =' #8 ' ; @ '?!' #B ' ' & # # ' ' ! 88'D ' A ='#?'#B <'D '#B ' ! ' K9' # =@ '@?<< = =A'#B ';F ' !; AA?#' !;?<'#>< ' #?'#>< ' '#B >' B 88'D ' =!E ; D8 ' #'#B ;'B AB #' K ;; 88

%' =' ! ?; '?!' ! < '* ;@B =#'?!' + ;;>' = ' 8! !#' ='*; 8 =

& %' 'K # # ?='A =' ='D>' ! < ' < ;@B =#' ' !;?<' + ;;>'Q @88! #' ='*; 8 = '(B E=A' %B #' #B 'K # # ?= ;' !8 ' !;?<'#B? ' K8 @ ' !;?<'#B ' !C; ' ?!'#B ' D ;D ;?C ' *; B' #B ; 4' = '! < '?!' #B <'!?=#? ;'D>'#B 'A? ;=?C;'?!'+ ;;>'#?'D; =A' ? ;' B K '#?' ; @' !;?<'#B =@ 'E?< =' = ' B 89

d ?<< '

>*+ 0

; =4 = ' @@?; =A8>'B ' ! =#! < '!8 K' ? ;'!?;' #B ' ' !! @#4 # ' ?#B ; ' #B >'B ' #' >;' (8#L @? #' = ' =' 8> 4 #?' A? ' ? ;' C#' *D = ' B ' #E?CAB#' A?? '8 '@B' '#?D @@?4 ! A ;4 @"' = '#B ' 8 " 4 D =A' EB #' #B >' @?C8 ' D; =A' E #B' #B <' ?;' ! = 'D>'?#B ; ' %?' " K' #B ;' ! < 8 ' !;?<'D =A' 8 '8 #8 ' DC;#B =!?;= ' ' K?! D8 '#?'#B ;' !; = ' 88' #B ' ?C=#; >' ; ' %B ;!?; ' @; =A' %B #' #B ' * '& # # ' E?8 ' D ' K8 ! ' #?' A; =#' 8 D ;# ' #B #' #B ! '! ; 88' A?? ' < >'D '8 = ' #' #B ' ! ; ' K ;# ' ;B ;'#B >' ; 4 #?'#B ' !! @#' # D ' B K ' < >'; L #C;='!?;' !! C;#B = =A'?!' + ;;>'V275'?#B ;'K8 @ ' ?!'E?< =' = '@B 8 ; =' = ' #B #'! ! C; #! ' < >'D ' # " =' !' #B? ' A?? ' D ' =?# #; = K?;# 'E #B =' ' @ ;# =' #>< ' ?;' !?;' EB #' K ;#' !B 88' D ' !?8 ' ?!' #B <' #B >'8B 88' XEB ='#B ' & # # ' E=! ; ' #B ;' ;@C<!# =@ '; #?; ' #B ' +C #>'#?'#B ' ! '& L # # 4 2 B @B' K # # ?='D =A' B ' ; ' = ' ?=9' # ; ' %B ' & # # ' ?!' #B ' 8 =A ?< ' ? 'A; =# #B ' >; '#B ;?!'E #B'#B 'K;? ! ?='#B #'#B 'K # L # ?= ; ' A ' ! @C; #>'#?' K >'#B ' C!C 88' +C #> ' ?;' C #?< ' ?!' #B ! ' A?? ' 88?E ' B ; D>' #?' D ' 8 = 4 !' #B >'D '=?# A ='#; = K?;# '9 2 #B =' F' <?= #B ' !# ;'#B ' # ' ?!' #B ' @ ;# ! @ # ' ?!' #B ;' D =A'8 = 'Q ! # ' D>'#B ' ?88 @#?;4 ' 8! '#?' K >'#B ' C '?!'! @B' K ;# '?!' #B ! 'A?? 'E @B' B 88' D '!?8 ' E #B ='#B '! F' <?= #B '!?;!

% %' #B ' ?<< ! ; ?# ?C;#' (#B >' ; 'B?E' @?= # #C# ' ; ' 'A; =@

% %' #B ' #E =#>' =#B' ' ?!' / ;8 < B# ; @P' F# '#B; 'A =A'#?'#B ' 1 =A'K?E ;'#?'*<L K? ' C #?< ' #' K8 !C; 'CK?='!?;; A= ' *<K?;#' = '#; ' ' ' A; = ' = 'K; C @ 8' #?' #B ' #; '?!'#B ' # ?=

% %' #B ' =?# # " =A' = ' !! @#C 88' @?C;! ' #?' ; K; ! '#B ' K; # ?= ' ';?DD ; 'D>'#B ' ABL 8 = '@8 == ' ' 'A; =@

) +' #B ' = B< =# D>' #B ' ?C=@ 88' ?!' #B ' A; # # K ;#' ?!' #B ' ?@ # '!;?<' & =DC;AB' E #B?C#' 'K;?@ 'E ' 'A; =@

% %' <? #' ?!' #B ' * E5 [' = @# ' =' #B ' / ;8 9' = =#' ==?' @ AB#>'!>#; ' ; ' *<K BC ' = ' *=#? ' ; D8 'A; =@

% %' #B ' < ;; A '?!' '1 =A'?;'3C =' ?!' #B ' 8< '#?' ' / K #' ' A ;?C ' #?' #B 'K;?# # =#' ; 8 A ?=' = '?CAB#'#?'D 'K;? > ' A = #

% %' #B '8 = '?;'D K =A'?='!??#' ' # = =A' ;<>' ='#>< ' ?!' K @ 'E #B?C#' ?'! =#?!' / ;B 9' < =#' ' 'A; =@

% &') ; =@ 'K; K ; ' = 'D;?CAB#' ='D>'#B ' ?< < ## '!?;'! #8 =A'#B 'A? ;=< =#' D =A'; 4 !# ;' ;AC =A'CK?='#B ' ! ; 88' ;# 8 '#B >'E ; ' ?# ' = ' KK;? = 'EB ;?!'#B '# =?;'!? ?E

3 ' * . + + * .' ?!' #B ' 1 =A ? = '?!' (@?#8 = ' +? ' K; ! =#'#B #'#B ' ?< < ## ' ?!' / ;8 < =#' @ 88 '#B ' ;# @8 (' ' 'A; #' A; =@ '#?'#B ' L # ?=4 = '#B #'#B ; ' ?CAB#'#?'D '=?' ?< < ## ' ?!' / ;8 < =#' DC#' !C@B' ' ; ' !; 8>'@D?! ='D>'#B ' & # # '#?'K; K ; '#??# ?= ' = ' ? ;#C; '#B #' ; ' ! ; #' < ' ='#B 'B?C!

% %' #B ' ! ; #' @#' ?!' / ;8 < =#' > 9' F# ' =>= ' '*=@?=! !# =#'E #B'#B '& # D8 !# < =#' ?!'#B ' BC;@B') ? ;=< =#'=?E' !>; ' = '?CAB#'#?'D ' D;?A #

% %' !K; ! C8#?; ' ='K; C @ '?!' !8% 88 4 ; L #?; ' = ' ; '?!' =# 8 ' ; ' 'A; #' =@

% %' #B ' ?DB A =A' #B '8 A '#?' K?= 'CK?=' @;>< ' A = #' 8 =NC =#' C#B ;E > '#B ='EB =' #B >' ; ' C@ ' =' K @ 88' K;?@ ! ' 'E #= ! ' ' 'A; #' A; =@

% %' ! > '?!'&;;?;' ; ' 'A; =@ ' = '#B #' JC; 'D '@?= ; 'D>' / ;8 < =#

% %' #B ' AB# =#B' @#' ?!' / ;8 < =#' * j' @9' AB#>'?= ' + @8 ; =A' ' C<C8 # 'JC; @# ?=' ' 'A; =@

% %' #B ' ?< < ! ; ?# ?C;#' (#B >' ; 'B?E' @?= # #C# ' ; ' 'A; =@

% %' #B ' #E =#>' =#B' ' ?!' / ;8 < B# ; @P' F# '#B; 'A =A'#?'#B ' 1 =A'K?E ;'#?'*<L K? ' C #?< ' #' K8 !C; 'CK?='!?;; A= ' *<K?;#' = '#; ' ' ' A; = ' = 'K; C @ 8' #?' #B ' #; '?!'#B ' # ?=

% %' #B ' =?# # " =A' = ' !! @#C 88' @?C;! ' #?' ; K; ! '#B ' K; # ?= ' ';?DD ; 'D>'#B ' ABL 8 = '@8 == ' ' 'A; =@

) +' #B ' = B< =# D>' #B ' ?C=@ 88' ?!' #B ' A; # # K ;#' ?!' #B ' ?@ # '!;?<' & =DC;AB' E #B?C#' 'K;?@ 'E ' 'A; =@

% %' <? #' ?!' #B ' * E5 [' = @# ' =' #B ' / ;8 9' = =#' ==?' @ AB#>'!>#; ' ; ' *<K BC ' = ' *=#? ' ; D8 'A; =@

% %' #B ' < ;; A '?!' '1 =A'?;'3C =' ?!' #B ' 8< '#?' ' / K #' ' A ;?C ' #?' #B 'K;?# # =#' ; 8 A ?=' = '?CAB#'#?'D 'K;? > ' A = #

% %' #B '8 = '?;'D K =A'?='!??#' ' # = =A' ;<>' ='#>< ' ?!' K @ 'E #B?C#' ?'! =#?!' / ;B 9' < =#' ' 'A; =@

:"7'3DXY ' +,' <* ' & * ' ? * ' ?+' * - ' +*. * .' +' / ' . . .L' +8 . ' 3* '7 ' - ' ?& -&' * ' * -+*. .' & ' .

-' +3%4!-,' "6 +%-QW 274-,'3"' / -' +-5+-6,-5'%7' 2+!%2 . -73 Q"3-5'275' =

% &') ; =@ 'K; K ; ' = 'D;?CAB#' ='D>'#B ' ?< < ## '!?;'! #8 =A'#B 'A? ;=< =#' D =A'; 4 !# ;' ;AC =A'CK?='#B ' ! ; 88' ;# 8 '#B >'E ; ' ?# ' = ' KK;? = 'EB ;?!'#B '# =?;'!? ?E

3 ' * . + + * .' ?!' #B ' 1 =A ? = '?!' (@?#8 = ' +? ' K; ! =#'#B #'#B ' ?< < ## ' ?!' / ;8 < =#' @ 88 '#B ' ;# @8 (' ' 'A; #' A; =@ '#?'#B ' L # ?=4 = '#B #'#B ; ' ?CAB#'#?'D '=?' ?< < ## ' ?!' / ;8 < =#' DC#' !C@B' ' ; ' !; 8>'@D?! ='D>'#B ' & # # '#?'K; K ; '#??# ?= ' = ' ? ;#C; '#B #' ; ' ! ; #' < ' ='#B 'B?C!

% %' #B ' ! ; #' @#' ?!' / ;8 < =#' > 9' F# ' =>= ' '*=@?=! !# =#'E #B'#B '& # D8 !# < =#' ?!'#B ' BC;@B') ? ;=< =#'=?E' !>; ' = '?CAB#'#?'D ' D;?A #

% %' !K; ! C8#?; ' ='K; C @ '?!' !8% 88 4 ; L #?; ' = ' ; '?!' =# 8 ' ; ' 'A; #' =@

% %' #B ' ?DB A =A' #B '8 A '#?' K?= 'CK?=' @;>< ' A = #' 8 =NC =#' C#B ;E > '#B ='EB ='#B >' ; ' C@ ' =' K @ 88' K;?@ ! ' 'E #= ! ' ' 'A; #' A; =@

% %' ! > '?!'&;;?;' ; ' 'A; =@ ' = '#B #' JC; 'D '@?= ; 'D>' / ;8 < =#

% %' #B ' AB# =#B' @#' ?!' / ;8 < =#' * j' @9' AB#>'?= ' + @8 ; =A' ' C<C8 # 'JC; @# ?=' ' 'A; =@

% &') ; =@ 'K; K ; ' = 'D;?CAB#' ='D>'#B ' ?< < ## '!?;'! #8 =A'#B 'A? ;=< =#' D =A'; 4 !# ;' ;AC =A'CK?='#B ' ! ; 88' ;# 8 '#B >'E ; ' ?# ' = ' KK;? = 'EB ;?!'#B '# =?;'!? ?E

3 ' * . + + * .' ?!' #B ' 1 =A ? = '?!' (@?#8 = ' +? ' K; ! =#'#B #'#B ' ?< < ## ' ?!' / ;8 < =#' @ 88 '#B ' ;# @8 (' ' 'A; #' A; =@ '#?'#B ' L # ?=4 = '#B #'#B ; ' ?CAB#'#?'D '=?' ?< < ## ' ?!' / ;8 < =#' DC#' !C@B' ' ; ' !; 8>'@D?! ='D>'#B ' & # # '#?'K; K ; '#??# ?= ' = ' ? ;#C; '#B #' ; ' ! ; #' < ' ='#B 'B?C!

% %' #B ' ! ; #' @#' ?!' / ;8 < =#' > 9' F# ' =>= ' '*=@?=! !# =#'E #B'#B '& # D8 !# < =#' ?!'#B ' BC;@B') ? ;=< =#'=?E' !>; ' = '?CAB#'#?'D ' D;?A #

% %' !K; ! C8#?; ' ='K; C @ '?!' !8% 88 4 ; L #?; ' = ' ; '?!' =# 8 ' ; ' 'A; #' =@

% %' #B ' ?DB A =A' #B '8 A '#?' K?= 'CK?=' @;>< ' A = #' 8 =NC =#' C#B ;E > '#B ='EB ='#B >' ; ' C@ ' =' K @ 88' K;?@ ! ' 'E #= ! ' ' 'A; #' A; =@

% %' ! > '?!'&;;?;' ; ' 'A; =@ ' = '#B #' JC; 'D '@?= ; 'D>' / ;8 < =#

% %' #B ' AB# =#B' @#' ?!' / ;8 < =#' * j' @9' AB#>'?= ' + @8 ; =A' ' C<C8 # 'JC; @# ?=' ' 'A; =@

% %' #B ' ?< < ! ; ?# ?C;#' (#B >' ; 'B?E' @?= # #C# ' ; ' 'A; =@

% %' #B ' #E =#>' =#B' ' ?!' / ;8 < B# ; @P' F# '#B; 'A =A'#?'#B ' 1 =A'K?E ;'#?'*<L K? ' C #?< ' #' K8 !C; 'CK?='!?;; A= ' *<K?;#' = '#; ' ' ' A; = ' = 'K; C @ 8' #?' #B ' #; '?!'#B ' # ?=

% %' #B ' =?# # " =A' = ' !! @#C 88' @?C;! ' #?' ; K; ! '#B ' K; # ?= ' ';?DD ; 'D>'#B ' ABL 8 = '@8 == ' ' 'A; =@

) +' #B ' = B< =# D>' #B ' ?C=@ 88' ?!' #B ' A; # # K ;#' ?!' #B ' ?@ # '!;?<' & =DC;AB' E #B?C#' 'K;?@ 'E ' 'A; =@

% %' <? #' ?!' #B ' * E5 [' = @# ' =' #B ' / ;8 9' = =#' ==?' @ AB#>'!>#; ' ; ' *<K BC ' = ' *=#? ' ; D8 'A; =@

% %' #B ' < ;; A '?!' '1 =A'?;'3C =' ?!' #B ' 8< '#?' ' / K #' ' A ;?C ' #?' #B 'K;?# # =#' ; 8 A ?=' = '?CAB#'#?'D 'K;? > ' A = #

% %' #B '8 = '?;'D K =A'?='!??#' ' # = =A' ;<>' ='#>< ' ?!' K @ 'E #B?C#' ?'! =#?!' / ;B 9' < =#' ' 'A; =@

% &') ; =@ 'K; K ; ' = 'D;?CAB#' ='D>'#B ' ?< < ## '!?;'! #8 =A'#B 'A? ;=< =#' D =A'; 4 !# ;' ;AC =A'CK?='#B ' ! ; 88' ;# 8 '#B >'E ; ' ?# ' = ' KK;? = 'EB ;?!'#B '# =?;'!? ?E

3 ' * . + + * .' ?!' #B ' 1 =A ? = '?!' (@?#8 = ' +? ' K; ! =#'#B #'#B ' ?< < ## ' ?!' / ;8 < =#' @ 88 '#B ' ;# @8 (' ' 'A; #' A; =@ '#?'#B ' L # ?=4 = '#B #'#B ; ' ?CAB#'#?'D '=?' ?< < ## ' ?!' / ;8 < =#' DC#' !C@B' ' ; ' !; 8>'@D?! ='D>'#B ' & # # '#?'K; K ; '#??# ?= ' = ' ? ;#C; '#B #' ; ' ! ; #' < ' ='#B 'B?C!

% %' #B ' ! ; #' @#' ?!' / ;8 < =#' > 9' F# ' =>= ' '*=@?=! !# =#'E #B'#B '& # D8 !# < =#' ?!'#B ' BC;@B') ? ;=< =#'=?E' !>; ' = '?CAB#'#?'D ' D;?A #

% %' !K; ! C8#?; ' ='K; C @ '?!' !8% 88 4 ; L #?; ' = ' ; '?!' =# 8 ' ; ' 'A; #' =@

% %' #B ' ?DB A =A' #B '8 A '#?' K?= 'CK?=' @;>< ' A = #' 8 =NC =#' C#B ;E > '#B ='EB ='#B >' ; ' C@ ' =' K @ 88' K;?@ ! ' 'E #= ! ' ' 'A; #' A; =@

% %' ! > '?!'&;;?;' ; ' 'A; =@ ' = '#B #' JC; 'D '@?= ; 'D>' / ;8 < =#

% %' #B ' AB# =#B' @#' ?!' / ;8 < =#' * j' @9' AB#>'?= ' + @8 ; =A' ' C<C8 # 'JC; @# ?=' ' 'A; =@

(⁄‘ CAB‘ <KD 88‘ ?!‘ 8 ;‘ !?;‘ J ‘ * 8 ‘ ?!‘ 8 ‘ = ‘ JC; 4‘ %B ‘ 8 ; ‘ ?!‘ ?; D ‘ !?;‘ #B ‘ ? !# ?!‘ 1>8 4‘ %B ‘ < A #; # ‘ ?!‘ ;‘ !?;‘ #B ‘ #>< ‘ !?;‘ #B ‘ #?C= ‘ ?!‘ ;4‘ %B ‘ < A #; # ‘ ?!‘ *;E =A‘ !?;‘ #B ‘ #>< ‘ !?;‘ #B ‘ #?C= ‘ ?!‘ *;E =A4‘ %B ‘ 8 ; ‘ ?!‘ +C=9‘ C8$‘!?;‘#B ‘@? !# ?!‘ ;; @"4‘ %B ‘8 ; ‘?!‘0?@B= E‘ >?C=A ;‘ !?;‘J ‘@? #?!‘ 2 A#?C=‘ ;?C=‘?! ;!8C #B‘ C;; >‘?!‘ = ‘ = ‘%B?< 8 F = ;‘?;‘ =>‘?= ‘ ?!‘ #B <‘ !?;‘ #B ‘ # E ;#; ‘ ;!‘ 1 ;" K DC;AB4‘ %B ‘ < A #; # ‘ ?!‘ #B ‘ #?C= ‘?!‘ 1 ;"@C DC; ‘E #B =‘ #B < 8 4‘ = ‘ #B ‘ < A 9‘ #; # ‘ ?!‘ +C<!; 4‘ =>‘ B K ‘ = ‘ ?#B ;‘ ! 88 ‘ =‘ #B ‘E # ;‘?!‘ #B4‘E #B‘K?E ;‘#?‘#B ‘ ‘K ;!?= ‘ B‘ #B ‘ ; K @# ? ‘#E C= ‘ !?;< ‘ #?‘ # ‘ !?@B‘ ?C;! ‘ ‘ ‘C!C &‘ =‘ ! = \\‘@ ! ‘ !?;‘ < " =A‘ #B ‘ ?; ;‘ !! @#C 88

7;‘ =‘ ! ?; ‘ ?!‘ %B?< ‘ @B ; ?=‘8 # ‘ ; #?;‘#?‘#B ‘ +C" ‘?!‘) ?; ?=

1 & %‘ #B ‘ (CKK8 8)=‘A C‘ =‘ = ‘\;! ! =# ‘ #?‘ #B ‘ < # =A‘ ?!‘ & # # ‘ ?!‘ #B ‘ 1 =A ?< ‘ ?!‘ (@?#8 = ‘ D>‘ %B?< ‘ @B ; !?= ‘ 8 # ‘ ! ; #?;‘ #?‘ #B ‘ +C" ‘?!‘) ?; ?=‘ (B E =A‘ #B #‘ #B ‘ K # # ?= ;‘ #‘B ‘?=#@ < =A‘?!‘#B ‘@ ##8 ‘?!‘& =DC;AB‘D =A‘ KK; B = 4‘ = ‘ D>‘E ;; = ‘ !;?<‘ B ‘ A; @ ‘ #B ‘ +C" ‘?!‘ < 8#?=‘*<K; !?= ‘E #B =‘#B ‘#?8D??#B‘ ?!‘ & <DC;AB‘ 91-+-‘ B ‘ # ‘ ; < = ‘ %7‘ 2‘ = ? # < ! ; D8 ‘ = ‘## ; =A‘@?= # ?=4‘ =A‘=?#B =A‘ #?‘8 ‘CK?=4‘ 2 B ;D>‘B ‘ B ‘ K??;‘E ! ‘ = ‘ @B 8L ; =‘ E 88‘ C## ;8>‘ K ; #B‘ !?;‘ BC=A ;‘ = ‘ #B ;!?;‘); =A‘ %B #‘ #B ‘ < # =A‘ ?!‘ & # # ‘E?8 ‘8??"‘ CK?=‘ #B ‘ K # # ?= ; ‘ < ! ; D8 ‘ @?= # ?=‘ EB?‘ ‘ ' " 8>‘#?‘ # ; ‘ =‘K; !?=4‘ = ‘#?‘A; =#‘E ;; = ‘#?‘ #B ‘ < A #; # ‘ ?!‘ & =DC;AB‘#?‘ #‘B <‘ #‘8 D ;#>‘ ‘ #B ‘ ‘ CKK8 @ # ?=‘ D ; ‘ 2 B @B‘ D =A‘ @?=L ; ‘B ‘#B ‘ ‘< # =A‘ ?!‘ & # # 4‘ %B >‘B ‘) =‘ Q‘ A; =# ‘ = ‘ B ; D>‘ A ‘ = ‘); =# ‘ 2 ;; = ‘#?‘#B ‘ ‘< A !#; # ‘?!‘& =DC;AB‘#?‘! #‘ #B ‘K # # ?= ;‘ #‘8 D ;# ‘?C#‘?!‘#B ;‘#?8D??#B

%‘ =‘ ! ?; ‘?!‘ 2 8# ;‘ (@?##‘?!‘0 #B?B=

U ‘ & %‘ #B ‘ K # # ?=‘ A =‘ =‘ = ‘ K; ! =# ‘ #?‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ ?!‘ #B ‘ 1 =A ?< ‘ !?;‘ 2 8# ;‘ (@?##‘?!‘0 #D?< ‘ < =# ?= =A‘#B #‘#B ‘K # L # ?= ;‘ D>‘ = ‘ ?; ;‘ ?!‘ ‘ ?< < ## ‘ ?!‘ #B ‘ ‘ # # ‘E ‘# " =‘ K; !?= ;‘ #‘ B ‘ C ' =A‘B?C! ‘ =‘ #B ‘ @?C=#; >4‘ EB ;‘ B ‘ E ‘ 8 =A‘ NC #8>‘ = ‘ K @ D8>4‘ = ‘E ‘ !;?<‘ #B =@ ‘ D;?CAB#‘ K; !?= ;‘ #?‘#B ‘#?8D??#B‘ ?!‘ & =DC;AB4‘ = ‘ ! =A‘#B ‘ ‘ K; !?=‘ ‘=?#‘?=8>‘ ;>‘C=EB?8!?< ‘ = ‘ < >‘K;? ‘ K; C @ 86‘ #?‘ #B ‘K # # ?= ; ‘ B 8#B‘ C#‘ 8!?‘B ‘ K; ! = ‘ =‘ #B ‘ @?C=#;>‘ ‘ = @ ! ;‘ #‘#B ‘ ! !?=‘ ?!‘#B ‘ > ;‘ !?;‘ < = A =A‘ B ‘ K ;# @C8 ;‘ !! ; ‘ %B ;!?;‘ C<D8>‘@; =A‘#B ‘ 8?; ‘ #?‘ @ 88‘ D !?;‘#B <‘#B ‘K # # ?= ;‘E #B‘#B ;‘ ! ; #‘@?= = =@ ‘ = ‘ F < = ‘B <‘ = ‘#B ; !# ;‘ +? ‘ ‘#B >‘ B?C8 ‘! =

C #‘ 2 B @B‘K # # ?=‘D =A‘ ; ‘ =‘K; ! =@ ‘ ?!‘#B ‘ ‘& # # 4‘ = ‘ #B ‘ < ‘ D =A‘ @?= ; ‘D 7‘ #B <‘%B ‘ ; < ‘#B ‘ ‘K # # ?= ;‘#?‘D ‘ ##‘ #‘8 D ;# ‘CK?=‘B ‘ ! = =A‘ @ C# ?= ‘#?‘1 ‘K @ L D8>‘ = ‘ #?‘ KK ;‘EB =‘ @ 88 ‘ C= ;‘#B ‘K =‘?!‘ # =‘#B?C = ‘ < ;" 4‘*=‘?D =@ ‘EB ;#?‘#B ‘K # L # ?= ;‘A ‘ =‘ ‘D = ‘?!‘ C# ?=; 4‘ =‘ #B ‘# ;< ‘ !?;! ‘ !CD! ;> ‘D ‘ J?B=‘ (@?#‘ ?!‘ = 8DC< ‘ 2 B @B‘ = ‘?!‘@ C# ?=; ‘D =A‘@?= ; ‘D ‘#B ‘ ‘& # # ‘ #B >‘D 5 ‘ @@ K# ‘ = ‘ +? ‘ @@ K#‘ #B ;?!‘ = ‘?; = ‘#B ;‘@8 ;" ‘#?‘; @ ‘#B ‘! < 4‘ EB @B‘ #B >‘ @@?; =A8>‘ ‘ = ‘#B ;!?;‘ #B ‘ ‘ & # # ‘B ‘A =‘ = ‘); =# 4‘ = ‘B ; D>‘A ‘ = ‘A; =# ‘?; ;‘ ‘E ;; = ‘#?‘#B ‘ 1 K ;‘?!‘#B ‘ #?8D??#B‘ ?!‘ & =DC;AB‘#?‘ ##‘#B ‘ < ‘ 2 # ;‘ (@?##‘ K # # ?= ;‘ #‘8 D ;# ‘!?;#B‘ ?!‘#B ‘ (RC ‘#?8D??#B

+‘ =‘ ! ?; ‘?!‘J < ‘ ;C@ ‘?!‘ 1 = ?@B

& %‘ #B ‘ / # # ?=‘ A =‘ =‘ = ‘ K; ! =# ‘ #?‘ #B ‘ < # =A‘ ?!‘\ ‘ & # # ‘ N!‘ #B ‘ 1 =A ?< ‘ !?;‘ J < ‘ ;C@ ‘?!‘ 1 = ?@B‘ < =# ?= =A‘ %B #‘#B ‘K # L # ?= ;‘ D>‘ = ‘ ?; ;‘ ?!‘ ‘ ?< < ## ‘ ?!‘ #B ‘ ‘ # # ‘E ‘# " =‘ K; !?= ;4‘ #‘ B ‘ E 88 =A‘ B?C ‘ =‘ #B ‘ KC=#; >4‘ EB ;‘ B ‘ E ‘ 8 =A‘ NC #8>‘ = ‘ K @ D8>4‘ = ‘E ‘ D;?CAB#‘ !;?<‘ #B =@ ‘ K; !?= ;‘ #?‘#B ‘#?8D??#B‘ ?!‘ & =DC;AB4‘ = ‘ (=A‘ #B ‘ ‘ K; !?= ‘ ‘ =?#‘ ?=8>‘ ;>‘ C=EB?8!?< 4‘ = ‘ < >‘ K;? ‘ K; C @ 86‘ #?‘ #B ‘K # # ?= ; ‘ B 8#B‘ C#‘ 8!?‘B ‘ K; ! =@ ‘ =‘ 5B ‘ @?C=#; >‘ ‘= @ ! ;‘ #‘#BT‘ ! !?= ‘ ?!‘#B ‘ > ;‘ !K;‘ < = A =A‘ B ‘ K ;# @C8 ;‘ !! ; ‘ %B ;!?;‘ BC<D8>‘@; =A‘#B ‘ 8?; ‘ #?‘ @ 88‘ D !?;‘#B <‘#B ‘K # # ?= ;‘E #B‘#B ;‘ ! ; #‘ @?= = L =@ ‘ = ‘&F < = ‘B <4‘ = ‘#B ; !# ;‘ ? ‘ ‘#B >‘ B?C8 ‘ ! = ‘ C #‘ 2 B @B‘ K # # ?=‘ D =A‘ ; ‘ =‘ K; ! =@ ‘ ?!‘#B ‘ ‘& # # ⁄ 4‘ = ‘#B ‘ < ‘D =A‘ @?= ; ‘ D ‘ #B <‘ #B >‘ ?; = ‘ #B ‘ ‘ K # L # ?= ;‘ #?‘ D ‘ ##‘ #‘ 8 D ;# ‘ CK?=‘ B ‘ ! = =A‘ @ CL # ?= ‘#?‘ 8 ‘ K @ D8>4‘ = ‘ #?T KK ;‘EB =‘ @ 88 ‘ C= ;‘#B ‘K =‘ ?!‘ # =‘#B?E! = 6‘ < ;" ‘ *=‘ ?D L =@ ‘EB ;#?‘#B ‘ K # # ?= ;‘A ‘ ⁄"‘ ‘ = ‘?!‘ CL # ?=; ‘ =‘#B ‘# ;< ‘ !?;! ‘ !CD! ;> ‘D ‘ + ‘ ;C@ ‘ ; =# ;‘ =‘ & =DC;AB4‘ @B‘ = ‘?!‘ C# ?=; ‘D =A‘ @?= ; ‘D ‘#B ‘ ‘& # # 4‘ #B >‘B ‘ @@ K# ‘ = ‘ +? ‘ @@ K#‘ #B ;?!‘ = ‘ ?; = ‘#B ;‘@8 ;" ‘#?‘; @ ‘#B ‘ < 4‘ EB @B‘ #B >‘ @@?; =A8>‘ 4‘ = ‘ %B ;!?;‘ #B ‘ ‘ & L # # ‘B ‘A =‘ = ‘ A; =# ‘ = ‘ B ;\7B>‘) ‘ Q‘ A; =# ‘ ?; ;‘ = ‘E ;; = ‘#?‘#B ‘ 1 K@ ;‘?!‘#B ‘#?8L D??#B‘ ?!‘ & =DC;AB‘#?‘ ##‘#B ‘ ‘J < ‘ ;C@ ‘ K # # ?= ;‘ #‘8 D ;# ‘!C;#B‘ ?!‘#B ‘ ‘%?8D??#B

%‘ =‘ ! ?; ‘ ?!‘ / #; @"‘ #?C=‘ ?!‘ 0 #B; !"‘ ⁄

& %‘ #B ‘ / # # ?=‘ A =‘ =‘ = ‘ K; ! =# ‘#?‘ US‘ #B ‘ < # =A‘ ?!‘ #B ‘ & # # ‘ ?!‘ #B ‘ 1 =A !?< ‘ !?;‘ / #; @"‘ (#?C=‘ ?!‘ * #B; "‘ < =# ?= =A‘ %B #‘#B

K # # ?= ;' D>' = ' ?; ;' ?!' ' ?< ## ' ?!' #B ' ' & # # ' E ' # " =' K; !?= ;4 # B ' E 88 =A' B?C! ' =' #B ' ?C=#; >4 EB ;' B ' E ' 8 =A' NC #8>' = ' K @ D8>' = ' E ' !;?<' #B =@ ' D;?CAB#' K; !?= ;' #?' #B '#?8D??#B' ?!' & =DC;AB4' = ' =A' ! ' ' K; !?= ' ' =?#' ?=8>' ;>' # =EB?8!?< ' = ' < >' K;? ' K; C @ 86' #?' #B ' K # # ?= ; ' B 8#B' C#' DD' B 'K; ! =@ ' =' #B ' ?C=#; >' '= @ ! ;' #' #B ' ! ! < ' ?!' #B ' > ;' !?;' BC<D8>' ; =A' #B ' 8?; '#?' @ 88 D !?;' #B <' #B 'K # # ?= ;4 E #B' #B ;' ! ; #' @?= = 9' =@ ' = ' F < = 'B <4 = ' #B ; !# ;' ? ' ' #B >' B?C8 ' ! = ' C #4 ' 2 B @B' K # # ?=' D =A' ; ' =!' K; ! =@ ' ?!' #B ' ' & # # 4 = '#B ' < 'D =A' ' @?= ; ' D ' #B < ' %B >' ?; = ' #B ' 'K # L # ?= ;' #?' D ' ## #' 8 D ;#>' CK?=' B ' ! = =A' @ C9' #"< ' #?' 8 ' K @ D8>4 = '#?' KK ;' EB =' @ 88 ' C= ;' #B 'K =' ?!' # =' #B?E = ' < ;" ' *=' ?D L =@ ' EB ;#?' #B ' K # # ?= ;' A ' =' 'D = '?!' C9' # ?=; ' =' #B '# ;< ' !?; ' !CD!@;> 'D ' ?D ;# A ' ?!' 8< !> ' 2 B @B' = ' ?!' C9' # ?=; 'D =A' @?= ; 'D ' #B ' ' & # # ' #B >' B ' @@ K# 4 = ' ? ' @@ K#' #B ;?!' = '?; =L ' #B ;' @8 ;" ' #?' ; @ ' #B ' < 4 EB @B' #B >' @@?; =A8>' ' = ' %B ;!?;' #B ' ' & # # ' B 'A =' = 'A; =# ' ; 'B ; D>') 'Q A; =# ' ?; ;' = 'E ;; = '#?' #B 9' 1 K ;' ?!' #B ' #?8D??#B' ?!' & =DC;AB' #?' ##' #B ' ' / #; @"' (#?=' K # L # ?= ;' #' 8 D ;# ' !C;#B' ?!' #B ' '%?8DC #B4

%' =' ! ?C; ' ?!' #B ') ?? ' %?E= ' ?!' & =DC;AB' !?;' !D = =A' #B ' ?<K =>' ' = ;' #B ' ?<< = '?!' K# =') ; B <

<8' % &' # =A' ?!' #B '& # # ' B =A' @?= ; ' ' (CKK8 # ?= 'A =' =' #?' #B <' D>' #B ' A #; # ' = ' #?E= ' ?C=! '' ?!' K ' #>' ?!' & =DC;AB' C<D8>' K; =# =A' %B #' =' ' > 9' & AB9' # ' #E?' %B ' A?? ' #?C= ' E ' *<K? ' CK?=' #?' ; ' '=C< ;?C '@?<K =>' K!' ?C8 ; 'C= ;' ?<L < = '?!' K# =') ; B < ' !?;' AC ; =A' ?!' #B '@ #>44 #B ' @B ;A ' EB ;?!' B ' K;? =' = ' B ' Q C=9' CKK?;# D8 ' DC; =4 = 'B 'D =' #B '@ C '?!' @?=L #; @# =A' <C@B' + D#' = '> #' B '=?E > ' =!E ;9' '#B ' K; # = ' A;?C= 4 EB ;!?;' *#' E ' ; ' *=' A ; ' #B #' #B ' #?C= ' ?<<?= 'K; !?=' = ' K; #' < = ' *B?K 4 B ' D =' <?; ' !; NC =#8>' D;?" =4 =@ ' f8 '; 8 =A' ?!' #B ' ' ?<K =>' #B =' D !?; ' = '#B #' #B ' #; =' = ' Q < 8 # ' ?!' #B ' DC;AB' E ' 8E > '*<K8?> '*=' @ ! ' ?!' =>' !! 9' @C8# ' (C '#B #' #B ' ' ?<K =>' ' 8#?A #B ;' !CK ;9' !8C?C 4 = '?@@ ! ?= '= 8 ' FK =8B' #?' #B 'DC;AB' = ' #B ;!?;' C<D8>' (CKK8 @ # =A' #?' #B ' !! @#' !# ;' < =# ?= ' %B ' ' & # # ' +? ' B ; D>') ; =#' E ;; = '#?' #B ' ' < A #; # ' = '#?C= ' ?C=! 88' ?!' . ' @ #>' ?!' & =DC;AB' %?' D = ' #B ' ' ?<K =>' #B ' ' < A #; # ' = '#?C= ' ?C=L ! 88' 8E > 'K > =A' #?' #B <' #B ;' ;; ; 'D !?;' #B >' D ' !D = ' = ' ; K?;# =A' #?' #B ' & # # ' EB #

#B >' E 88' ?!! ;' #?' #B <' !?;' ! @C; #>' #?' #B ' #?C= ' =' K8 @ ' ?!' #B ' ' @?<K =>' = ' < " =A' ?!! ;' ?!' #B ' !?C8 ; ' ?!' #B ' @?<K =>' #?' !?< ' ?!' #B ! ' ?; ; 'D>' #B ' 1 =A' #?' 8 ' !?C8 ; 'B ; '!?;' B ' # ' ; @

%' !?;' '= E' &8 @# ?=' ?!' A !#; # ' = #B ' C;AB' ?!' ?#B ! >

% &' # =A' ?!' #B '& # # ' # " =A' #?' #B ;' @?=9' <<
; # ?= ' #B ' *= ! ?= ' < ' CK?=' #B ' K; 9'
8 A ' ?!' #B ' ?> 88' DC;AB' ?!' ?#B >' =' #B '
8 @# ?= ' ?!' #B ;' < A #; # 4 D>' ; @?<< = # ?= '
Q ?#B ;E > ' < ' D>' #B ' 8 # ' 1 =A' =' ; ' ;L
D #; ;>' Q + K?# @"' E >' %B ;!?;' #B ' '& # # '
+? ' C#B?; W '#B 'K; ! =#' #KC= '@8 ;" '#?' = ='
#B ' EB?88' DC;A ! ' EB?' D ;' DC; =' E #B' #B '
#?C= ' = ' ; '8> D8 ' =' E #@B =A' = 'E ; YA&F9'
@*C =A' B?=?; ;>' DC;A ! `' #?' < #' CK?=' #B '
#E =#>' =>=#B' *= # =#' E #B' @?=# =C # ?= ' %?' #B '
!! @#' #B ' ' DC;A ! ' < >' 8 @#' < A #; # ' = '
?; = ;>' ?C= '' ?!' #B ' ' DC;AB4' @@?; =A' '
#B 'K8C; 8 #>' ?!' ?# ' B 88' # ;< = ' = ' #B '
& # # ' +? ' =?< = # ' = ' KK?>=#' #B ' 8 ; ' ?!'
;= ' 8 ;4 #B ' K# =' ?!' +C=C= 4 = ' J?B=' (# E ;#' ?!' & @?A' ?;' =>' ?= ' ?!' #B <' #?' '#B '
&8 @# ?= ' < ' = ' KK?>=#' #B ' < A #; # ' = '
?C= '' !E ' @B?! =' #?' @?=# =?E' # '' #B 'K; !' ; #' #C 9'
>' !# ;' @B 8< ' = F#' %B #' #B =' = '?=' #B #'
>' '= E' 8 @# ?=' !?;' #B ' =!C =A' > ;' ?!' D?#B'
< A #; #' @?C= '' Q + @?=' ?!' @; !#' < >' K;?L
@ ' =' 88' K?>=# 4 @?=!?;< '#?' #B ' ##' Q C #?< '
?!' #B ' DC;AB' %B ' A #; #' #B =' #?' D ' @B?! ='
D =A' 'E > ' < ' ?!' C@B' EB?' ;' @ K D8 '#?'
B ' &8 @# 4 = ' #' ' B ; D>' @8 ; ' #B # #B '
' < A #; #' = ' ?C= '' #?' D ' @B?! =' !%' #B '
K; Z! =# @#4 B 88' D ' ; KC# ' = 'B?8 =' '8 E!C86'
=' 88' ; K @# 4 ' !'#B >' B 'D =' #;C 8>' = ' C 8>'
&8 @# ' #' @B 8< ' @?=!?;< '#?' > '!?;! ' (##'
?!' #B 'DC;AB' =' ''K?>=#

% &' < ## =A' ?C;= ' C=# 88' #BC; >' #
# =' '@8?@"

&+* ') ' H7 K;>88' G

%' !?;' '8 >' ?!' ?;! < =' ?C# ?!' #B '
! ; ''!8 >; '?!' #B ' 1 =A ?<

% &' # =A' ?!' #B '& # # '! = =A' #' = ! ; ' <5'
%B #' #B ' 1 =A ?< 'D 'KC##' =' '. - ' ?!' L
! =@ ' !?;' ! @C; # ' #B ;?!' 8!E 88' A = #' #B '
=A ;' ?!' = ?=' !;?<' D;? 4 ' =>' =# # = '
#;?CD8 ' #B #' < >' ! '' ?C#' #B ; =' = ' !?;' #B #'
!! @#4 #B #' ' @?<K # =#' =C<D ;' ?!' !?;@ ' D '
; ' = ' " K ' CK' E #B =' #B ' < '%B ;!?;'
#B >' ?; =' #B ' =C<D ;' ?!' B?;! < =' !# ;' < =L
?= '#?' B '8 ' = '; ' !;?<' #B ' B>; '?!'
#B ' 1 =A ?< 'EB @B' ; '8> D8 ' = 'B 'D =' ='
C ' #?' ?C#; '" B?;! 4 D =A' #B ' !?C;#B' K ;# ?!

#B ;K;?K?;# ?= ?=# = =#B #E =#> =#B
@# ?! #B / ;8 # @P (F# #B; ?!? ; =L !;?< #B B>; ?! ?FDC;AB = (8" ;"#B ;# =B?;! !;?< #B B>; ?! ;E @" AB# =B?;! = #B B 8! ?! = B?;! !;?< #B B>; ?! =A#?CB AB# =B?;! Q = B 8! !;?< #B B>; ?! & =DC;AB AB# ## = = B 8! !;?< #B B>; ?! / D8 ! =B?;! = #B !?C;#B K ;# ?! = B?;! !;?< #B B>; ?! 0 =8 #BA?E# =B?;! = #B B 8! ?! = B?;! !;?< #B B>; ?! +C<!; #E =#> #E?!;?< #B B>; ?! 2 A#? < = # E ;#; ?! * ;"@C D;CAB #E =#> #E?!B?< #B B>; ?! ; =! E !?C;#>!?C;!;?< #B B>; ?! 0 = ;" #B ;#> =!;?< #B B>; ?! (# ;8 =A = 8 @"< = =#E =#> #E?! !;?< #B B>; ?! $>! = 1 =;? !?C;#> !?C;! !;?< #B B> T ?! / ;#B !?C;#> !?C;! !;?< #B B>; ?! !!?;! ;#E =#> !> B?;! = #B; !?C;#B K ;# ?! = B>; ?! 1 =@ ; = = ;!@B 88 K ;# ?! D ; =B>; AB# =B?;! = = B 8! !;?< #B B>; ?! <!! = &;;?' K ;# ?! J B>; ?! D ; ; !?C;#> !?C;! !;?< #B B>; ?! &8A = ;= = #B > ?! ! #E =#> #E?! !;?< #B & ;8 ?! (!?;#B! = 0?; 0? # #B ;+ ! ?= ?! *=C ;@ = #E =#> #E?! !;?< #B B>; ?! (C#B ;8 = #B= ! = #B ; # ?! *=C ;= #E =#> #E? B?;! = #B & # # +? ?; = = ; NC ; #B ?< < ! ?= ; ?! J < 8 # = #B 8 ; ?! #B < 8 # B?;! ! = #B B>; ? < # # #B B DC;AB ?! #B ; 8 B>; W #8 ! ?= #B > ?! #B =?;#B9E # ;9D; A CK?= #B #E =#> !>!#B + > ?! K;>8 = # =# = #B D =?;#B #B D; A CK?= #B (@?= + > ?! = F# = KK?>=# #B ; 8 B ; 8! @8 ;" #? @?= = #B <? #B # !! @# = ; = #B @?< < ! ?= ; = 8 ; D =A < ##! #? K;?L K?;# ?= = @ C! #? D ?C#; @"@ ! #B ; K @# =C<D ; ?! B?;! D? FK; #! @@?; =A #? #B ;C8 ?! #B < 8 # ! E #B # = > K;? ! ?= ! = #? KK?>=# #B !; @# ?= #? D K > = #? #B 8 ; E #B = !?C;#> AB# B?C; !# ;# #B @ # B 8 D < = *=@ @ ?! ; !C ! 8 ?; 8 > #? KK?>=# #B @?< < = =A ?!! @ ;# #? NC ;# ;# CK?= #B + ! @ =# ! = #? @ C! 8> @;# #B B?;!@<@= ?C#;@ @" #? !?< ?! #B ?!! @ ; ! EB? B 8 D KK?>=# #? ; @ = @?< < = #B <# #B B DC;AB ?! #B B>; CK?= #B + > !?8?E =A W !?;# #B B>; ?= #B > ?! #8 =?;#B9 E #@;9D; A? CK?= #B ! @?= > ?! B8 = F# = #B ! D =?;#B #B D; A CK?= #B =>=#B > ?! = F# = #8 & # # +?@ =?< = # = KK?>=# * ?; CAB C=# = = ! @8 ?#B ;# K ;!?=@ B 8 D KC# D> B <# ?# <C # ;# #B B?;!@<@= = #? #B # #B B?;! D !C!8 9 @ =# @B B?;! E?;#B # 8 # # = K?C= # ;8 =A = #B ; T ; = B?;! !C!8 @ =#8> K;? > E #B == = !C;= #C; #? #B 8C ?! !> K?C= # ;8 =A = *# B ; D> + @8 ; #B # #B B? ! <@= B 8 D # " = =#? #B 1 =A K > @L

@?; =A #? #B & # D8 B< =# ?! #B 1 =A ?< !# ;F K>; =A ?! #B # !# + > ! ?; EB @B #B > ; KK?>=# #?D K;? > D> #B ?' #; @" ; = #?D KCD8 !B # #B < ;@ # @;?! ?! & =L DC;AB = 8>" E > KK?>=# #B B ;; !! 8 ;" ?! #B ; 8 B>; #? @ C! KCD8 !B #B < # #B < ;@ # @;?! ?! #B B DC;AB ?! K ; K @# B>; #B #=?= < > K; # = A=?;L =@ #B ;?!

% & # =A ?! & # # + ? A E ;; #? #B A #; # ?! & =DC;AB #? " K #B & ;8 ?! 8@ ;; @8?! K; !?= ;= #B #?8DC #B ?! & =L DC;AB E #B ?= ! ; =# #? ; < = = #B ;?E< E #B B < = =?# #? 88?E => K ;!?= #? B @@ ! #? B < F@ K#) ?;A (# ;8 = K?#B @ ;> C=# 88 !C; ;? ?; ;

+ -+6"+ S--:%7# & ;8?! 8 42++2,4!'6D K; ! ;

% & #B #? D < = !# ; %? #B 1 =A = 3C = #B ;@@ K# =@ ?! #B ;?C=

% & !?;< ?! #B #B #? D # " = D> #B ; U # #B 1 =A = 3C = #B ;@@ K# =@ ?! #B @;?C= 4 D =A #C @ ; E ?# = KK;? = D> #B & # # 4 ?! EB @B ? #B #B # =?; !?88?E

2 & ! #B!C88> / ;?< 8 = (E ; > #B ?C; (?8 <= ? #B = / ; ! =@ ?! #B &# ;= 88) ? 4 #B # C; =A #B EB?88 @?C;! ?! ?C; 8 ! 4 E E 88 ; #B < # ;= 88) ? 4 #? #B C## ;<? # ?! ?C; K?E ;4 @@?; =A B B ; L NC ; = B <? # B?8> E?; 4 ; 8 = @?=L # = = #B = E = ?8 # # < =# 4 = @@?; L =A #? #B < E?; B 88 < =# = #B #;C L 8 A ?= ?! B; # J C #B K; @B =A ?! B B?8> E?; = #B C = ; AB# < = #; # ?= ?! #B @; < =# =?E ;@@ = K; @B E #B = #B 8<@ ?! (@?#8 = 4 = B 88 D?8 B = A =9 # = '! 8 ; 8 A ?=4 @?=#; ;> #? #B < 4 = B 88 ;C8 #B K ?K8 @?< < ## #? ?C; @B ;A 4 @@?; =A #? #B E 88 = @?< < = ?!) ? ; L 8 = B !?; E?; = @@?; =A #? #B 8? D8 8 E = @?= # #C# ?= ; @ = #B ; 8<@ =?E > ; KCA= =# #? #B E?; ?! #B &# ;= 88) ? 4 = B 88 K;?@C; #? #B C#< ? # ?! ?C; K?E ;4 #? #B 1 ;" ?!) ? 4 = EB?88 B; L # = K ?K8 #< = K ;! @# K @ = 88 #>< @?< =A %B # 2 B 88 K; ; = " K = ?9 8 # #B ; AB# = ; =# 4 E #B 88 C # K; 8 A ?! #B @;?C= ?! (@?#8 = 4 = #B ; B 88 E #; = 9 ! =9=?; 8 = # #B < %B # E B 88 !?;D = ; K; ! = 88 & # # = + A; 4 ; ! 4 ?KK; !9 ?=4 = 88 " = ?! E; =A = 2 B 88 ?<L < = = K;?@C; #B # C # @ = NC #> = 88 C A < =# D " K #? 88 K ; ?= E #B?C# F

?=

1 =A ?< B A; =# = B ; D> A; =# #B + 8 ; ?! #B K # # ?= = B + !@B ;A = B ; D> + @B ;A #B & < D ;A? ?; ; CK?= #B B K Q ? # = #B E # ;= K?;# ?! #B 1 =A ?< = ? ! ;; @?=@ ;= !C@B B K B A; E #B #B K # # ?= ; #? #B !! @# !?;! 88 == ;8> 0 " #B & # # C; = = NC ; T K# = 2 88 < < 8#?C= ?! 0 >8 = #? @?=L ?> #B B K = #B ; K ! A #? = !;?< *; 8 = E #B ?= ?! #B !; A?## C= ; B ?< L < = = #B ; @ ?! #B & # # !?; #B K # L # ?= ; ! @C #>

$ 00 2 (#B @# !?; = E &8 @# ?= ?! g A #; # = #?C= @?C= 88 = #B ! ; '' ?> 88 C;AB EB @B @# K;?@ CK?= #B ; K?;# ?! @?=< ## KK;? = D> #B & # #

%! ?; = E &8 @# ?= ?! A !#; # = #B ! ; 88 ?> 88 C;AB

% & & # # ?! #B 1 =A ?< B =A B ; = ?=! ; ; K; ! =# # ?= < !;?< #B ?=< ! ?= ; ?! #B K # ?= ; ?! #B ?> ' DC;;?E !?; ; AC8 #L =A #B < A #; @> = @?C=! 88 #B ; ;! ; =A #B # # E #B ;?K = ?= %B # #B B DC;AB !?;L ! !8 ?C8 B = E 8 @# ?= ?! < A #; # = @?C= 8 %! #B K?88 ?! #B DC;A ! D ; =A DC;#B = = #B ; F DC;AB &F@8C =A B?=?; ; DC;A ! #? ' = ! ; =# K =! ?= ; = < = 8!? B =A ?=! ; #B ; K; ! =# H= < D> ! ; 88 DC;AB EB> #B > ?CAB# #? @?=L # =C #B ; < A !#; @> = @?C=8 ' D =A !; 8> 8 @# @?=!? = #? #B ;K; 8 A = @?=# #C9 # ?= %B & # # + ? ! = #B # A = ; 88> #B !?;! B ' ;?> 88 DC;;?E B !C!! ; = %? #@B9 < =# ?= # ;8 D ;# Q K; > 8 A D> 0 ## ; = @?=< = # ?## !;?< #B 1 =A B ?C=8 88 = ?#B ; B =A K?E ; = *=!8C =@ 2 B ;D> #B ! ; 88 > ; K #4 < => ?! #B DC;A ! ?#B ;E > NC 8 ! #? 8 @# B D 8 @# B D = D ;; %B ;!?; #B & # # + ? B ; D> ?; ; = E ;; = !?; = E 8 # ?= #? D < ?! ?; = ;> < #; # = #?C= @?C=! 88 !?; #B ! ; ' ?> 88 DC;AB #? D B?! = D> #B K?88 = #B # ?= !C@B # ?= = # J AB# ?! !C@B K ;!?= #B & # # !8 88 KK?>=# = ; = #B #?C= @8 T' #? @?= = #B B D 8 D;=A ! #? #B # !! @# X&F@8C =A B?=?; > DC;L A ! #?C= ! ; =# K =! ?= ; = D < = = #? K;?@ = #B !?;! &8 @# ?= 4 < #B < < == ; E !?; < ;8> ?; ; = KK?>=# D> #B & # # = #B &8 # ?= ?! #B < A L #; # = #?C= ?C=! ' ?! &!! =DC;AB = + C=L = ?>=# #B < A #; # = #?C= 4@?C=9 ! ' ? 8 @# #? @?=# =?E # 88 #B ?; = ;> #>< I9 ?! #B ; 8 @# ?= # #?;= ; @B 8< = , #

% & ## =A ?C;= #? # 8 @8?@" #? <?;;?E

+C" ?! < 8#?C= #B ; / ; =# #?! !CD! ;>
K ;# @C8 ; ?< < ! ?= #?! 8"= ?! #B 7
K ;!?= #?! #B !! @# !?;! = !?;! #B
K ;!?= = #B C= ;! ?!! @ ; #?! D = < D>
#B < # ;! =@?C; A < =# = #B K;?9
! @C#"<?!#B ; @ %B & # # + @8 ;
#B # 8"= ?<K =>= #B ; 86 ; A < =# !# ;
#B ! < = <C!# % = !?C= #?! @?=! !# ?!
F#>< = @?<K8 # = #B #;?CK !# ; #B
! < = @?<K8 #8>8 = <C # ; = !?C=
#?! @?=! # ?! ! !# B?;! < =4 B 88 B =# ; = ; @ =#?! #B KCD8 @"= K >4 ?=!?;< #?! #B
K; ! =# & # D8 !B< =# ?!#B 1 =A ?< 4 = #B #
!?;D?#B?!! @ ; = ?C8 ; 4 ?! 8"= ?! #B
?<K = 4 = #;?CK #?! D <C!8 ; = @?<K8 # * D =A ;#B 8 #B
< = =A ?!#B & # # #B #B ?'?= 8 8 # =L
= =# ?88@< 8 = ?; 4 B 88 =?# B #B K >
?! ?8 ?= 8 8 # = =# ?8 ?= 8 = ?; =#B 7
; F ; A < =# 4 C=# 88 #B ; K @# @?<K8 # =A
= <C # ; =A ?! 8"= ; A < =# D?#B ?!! @ ; = !?C8 ; ?!#B =C<D ; = + ! ?= D? F
K; !# C# K; C @ #?! #B ?8 ?= 8 8 9
= =# ?8 ?= 8 = ?; ?! #B ; K > K9
= ?!#B ; F ?<K = !# ;#B @?<K8 #L
=A = <C # ; =A ?! 8"= @?<K =>= < = ; D?
< =# ?=

%! !?;; = E &8 @# ?= ?! A #; # =
*; =

% & # =A ?!#B & # # ! " =A#?#B ;@?=9
; # ?= #B *= ! ?= < CK?=#B K; 8 A
?!#B ?> ' DC;AB?!*; = = #8 &8 @# ?=?!#B ;
< A #; # D> ; @?<< = # ?= = ?#B ;E >
< D>#B 8 # 1 =A = = 9 ;D #; ;>E > ?=9
#; ;#?#B 8 E = @C #?< ?!#B DC;AB4 %B ;!?;
#B & # # + ? C#B?; W 4#B K; ! =# #?C=
@8 ;"?!*; = #?@?= =#B E=? ' DC;A ! EB?
D ; DC; = E #B #B #?C= = ; 8> B8 =
E #@B =A = E ; =A X&F@8C =A B?=?; ;> DC;L
A ! #?< # CK?=#B #E =#> !?C;#B = # =#
E #B @?=# =C # ?= ?! + > 4 %^ #B &!! @# #B
DC;A ! < > 8 @# < A #; # = ?; = ;>
@?C= 88 ?! #B DC;AB4 @@?; BA #B K8C; 9
8 # ?! ?# B 88 # ;< = 4 #B & # #
+? =?< = # = KK?>=# J ?; # CAB C=# = < 8#?C= ?!) ; =A ?; => ?= ?!
#B <#?# #B &8 @# ?= < K KK?>=# J A #; # = ?C= 88 !C @B?! ##?# ?=# =?E
=#B ! ; # #C > !# ; @B 8< = F# %B
#B = = ?=#B # > = E &8 @# ?= !?; #B 9
!C =A > ; ?! D?#B < A #; # @?C=! ' = + @?=
; !# < > K;?@ = 88 K? =# 4 ?=!?;< #?
#B ## = @C #?< ?!#B DC;AB4 %B < A #; #
#B =#?D @B? =D =A 88E > < ?! C@B
EB?; @ K D8 #?D &8 @# 4 = # B ‖ D>
+?@8 ;@ #B # J < A #; # = @?C= 88 #?
B @B?! =D>#B K; ! =# @# 8 88 D ; @KC# =

' ' '*(= ' '

B?8 =' ' 0 E!C86' =' 88' ; K @# 4' ' !' #B >' B ' (&01* 1'#E =#>' =#B' K >884'8 ; '?!'/B 8 K9
D =' C 8>' = ' #;C 8>' 8 @# ' #' J @B 8< '@?=9' B CAB'? ;! ;
!?;< '#?'#B '!?; ' ##' ?!'#B 'DC;AB' =' ''K? =# '
= ' B = '#B ' K; =# '#?' D 'KCD8 B ' #' &0)* &' !>!# =' ?!' ' E #B' @?=# =C # ?= ' ?!'
#B '< ;@ # ;?!'?!'*; = ' ='#B 'C!C 88' E > + > '%B '8 ; '?!')'; =#4')'; =A 4' ; @?'G'*== 9'
?;' =>' ?= '?!'#B <'? ;! ;

2 %='+*' * ' & 1&*% *)'#E =#>'!?C;#B' K;>88' E #B'
07 0'+ % &' & # # ' ?!'#B ' 1 =A ?< ' +? 'B ; D>'A ' @?=# =C # ?=' ?!' > ' %B ' 8 ; ' ?!' !!?; 884' / #9 '
G*-'+, ?; ;' = 'E ;; = '#?' #B ;' @8 ;" '#?' A '?C#&FL ; 4'(K =@ ;! 8 4'?; =>'#E?'?!'#B <'? ;! ;
&'-',+* #; @#' ?!'#B ;' @# KK?>=# =A' = E' &8 @# ?= ' ?!'
?'1 -' #B ' < A #; # ' = ' #?C= ' @?C=8 ' ?!' #B ' B 88' 1* 1 0+*&' #E =#>'' =>=#B' K;>88' J < '
+ +' &' ?> 88' C;AB ' D>'#B ' ?'4 #?' ?=# =?E'# 88' #B ' 2 >< ' ?!' ?A ' = 'J?B=' 2 B # '?!' == @B 5'
! 88 ?; ;>' #>8= ' ?!' #B ;' 8 @# ?= ' # @B 8' ' ? ;! ;
> *0& = F#'%?' C@B'?!'#B '; K @# ' ?<< ! ?= ; '!;?<'
DC;AB ' ?;' ?#B ;' < <D ; ' ?!' #B ' < # =A' ?!' #B ' ' %*(0 +' ! ; # ?!' ' K# =' J?B='
& # # 4' ' B 88' A ' =')?= @ = =@ ' ?!' #B ' ;=' ?!' ; A#?C= ' = ' J?B=' 0 ' ?!' 2 #99'
; K @# '+> # '?!'&8 @# ?= ' = '? ;! ; '#B ;?!' NC ;# ;'? ;! ;
#?' D ' =# < # ' ='#B ' < # =A' ?!' #B '& # # 4' ?;' =' 1*) ' ! ; # ?!' ' J < ' 2 < ' ?!'
=>' ?<< ## ' ?!' = ' #B ;' #?' D ' < ;!@ ' ' K9' ?A ' = 'J?B=' 2 B # '?!' == @B '? ;! ;
K;? =' D !?;' A =A' ?C# ?!' #B ' ; ' &F#; @# '
?!'#B ' ' #9

/& % '#B ' ! ; # ?!' 4' %B?< ' >'?!' 89;'
1$ &' #?' EB @B' ?; ;' &F#; @# ' ; 'A =' B?C! '(' ?8 = ' <KD 88'?!' D ;C; B 884' / #; @"'
?C# !?;' = E' &8 @# ?= ' ?!' < A #; # ' = ' #?== ' (< #B'?!' #B =4' 2 8# ;'(# E ;#?!'1 =@ ; @B '
@?C= 88' ='#B 'DC;AB ' !?88?E =A' K?;#B =A' +;C<?= '?!' A =8B'0 8 '?!'*== ;= # '?;' =>'
D =' < '#?'#B ' ?< ## '?!'#B ' + > ' ?!' & @L #E?'?!'#B <'E #B'@?=# =C # ?= '?!' + >
# ?=' = '? ;! ; '?!'#B ' < 'D !?;' &F#; @# =A

3 '&& ($& *&'#B ' ! ; #?!' '+C= '?!'
* / * *('#B ' &8 @# ?= '?!'#B '< A # #' = ' +C #?= '? ;! ;4
#?C=' @?C= 88'?!' & +&& ' CK?=' #B ' ! ; #?!'
>'*7 ' AB#>'=>= '(' 8 F = ;' == ;< ='
+ & 2 (' (@?= '?!' '8 " '?!' @B9'
?!' &8 @"4' (' %B?< ' C< #?!' 0 (4' (' J?B=' #? <' 8 ;' (=!??; ' = ' 1 =" 88' ?>' =>' #E?'?!'
$?;D '?!' ; A ;4' J < ' ?; '?!' (#?= E ?' #B <'?> ;! ;
= ') ?;A ' #?='?!')'; = B <' ?;' 270' #E?'?!'
#B <'? ;! ; 'E #B'@?=# =C # ?='?!' + >

%& '#B '&8 @# ?= '!?;'#B 'DC;AB'?!' & &('
#B '#E =#>'!?C;#B'?!' '#B '8 ; '?!')'; =#' = '
C 8? = '?;' ='#B?;' D! =@ '#B '8 ; '?!' (8; @1 @'
?;' 8 F = ;' B ?8< ' B ; !!' '+ KC#'? ;! ;

0* 0*%) 2'#B '#C =#>' =#B' ?!' K;>884'
%B '8 ; '?!' +C #?= ' = ' ?ED ; '?;' =>'
?= '?!'#B <'? ;! #

/&& 0&('#B '#C =#>' =#B' ?!' K;>88' %B '
8 ; '?!' ?; ;?==?E'? ;! ;

J&+ ') '#B ' @?= '?!' >4' %B '8?; ' E9'
B?#8 '? ;! ;

& $ & 2 '#B '#E =#>' F#B'?!' K;>88' ; E!C; '
?!' ;!DC<'>?C=A ;'? ;! ;

' /& '#B '#B ;# #B'?!' K;>884'8 ; '?!' 9'
#?=' 8 ;' ' 8 ;' = ' ?K '?!' " 88?;'?;'
=>'?= '?!'#B < '

2*)% ' '#B '! ; #?!' 4' 2 88 <' (# E ;#?!'
#8 # E ;#4' FE 88'?!' ?=; #B4' J < '+C 89'
D ;'?!' ?@B<<'?;' =>'?= '?!'#B <

+ & 2 (' (@?= '?!' '8 " '?!' @B9'
#? <' 8 ;' (=!??; ' = ' 1 =" 88' ?>' =>' #E?'?!'
#B <'?> ;! ;

/ ((&' ! ; #?!' '#B '8 ; '?!'+C== '
/ # == ' = ')= = '?;' =>'#E?'?!'#B <'? ;! ; 4

2 *% '!>!# ='?!' '/ #; @"' ?C #?= '
?!'+;C< !#?= 'J?B=' (# E ;#?!'/B A ''? ;! ;

'00&* '!>!# ='?!' '#B '& ;! '?!'$B #?; '
? ; ;' 7

(% 2 & ' # =#B' ?!' '(' = ; E'
A= E'?!'0?@B= E' 2 88 <' ?EA ''?!') ;#B9'
8 = 'J?B=' " ;'?!'+C= " 'J < ' 2 88 = '?!'
/? #8

& (% '% & '& (%& '! @?= '?!' '(
/B 8 K' &= #;C#B ;' J < ' + =!#?= '?!' (%??; '
?D ;# !!?#B; BAB < '?!'0 EB 88'? ;! ;

(%3 ' &'(F# ='?!' '2 88 <' ; @B9'
#?C= '?!') ?#8 = '? ; =

+ ' $ &*('# =#B'@ ' '= F# ('J < '+?CAL
8 '?!' 1 'B ' ('J < 'J?B=!#?C= '?!' 2 #; E'
= ' E' FE '?!' + 8!E =#?## ?;' =>'?= '
?!'#B <'? ; ;

& + * ' 3 ‘SSH K;>8 ' G

%‘ !?;‘ ? 88 =A‘ #B ‘ ‘B ! ‘ =‘ # = #;??K

U‘ % &‘ & # # ‘ ?!‘ #B ‘ 1 =A ?<‘ @?= ; =A‘ #B #‘ D>‘ #B ;‘ @# ?!‘ #B ‘ & AB# =#B‘ = # =#‘ #B >‘B ‘ ?; = ‘ #B ‘ =C<D ;‘ ?!‘ !> ‘BC= ; ‘B?;! < =‘ ‖?;‘ #B ;D>‘ #?‘ D ‘8 ‘ = ‘ ; ‘?C#‘ ?!‘ #B ‘ B>; ‘ ?!‘ #B ‘ 1 =A ?< 4‘ @@?; =A‘ #?‘ #B ‘ K;?K?;# ? # ‘ #B ; =‘ FK; #4‘ = ‘ #‘ D =A‘ = @ ! ;>‘ #B #‘ #B ‘ B?;! < =‘ D ‘ <? 88 ‘ =‘ #;?CK ‘ = ‘ ?!! @ ; ‘ =?<B‘ = # ‘ #?‘ ?<< = ‘ #B <4‘ %B ;!?;‘ #B ‘ & # # ‘ +? ‘ ; =‘ #B #‘ #B ;‘ B 88‘ D ‘ # =‘ #;?CK ‘ ?!‘ #B ! ‘ B?;! L < =‘ @B‘ #;?CK‘ @?= !# =A‘ ?!‘ ! !# ‘#?‘ D ‘ ?<< = ‘ ‘ !?' ?E ‘ W‘ %B ‘ #?‘ D ‘ ; ‘?C#‘ ?!‘ #B ‘ B>; ‘ ?!‘ ?FDC;AB‘ = ‘ (8" ;"‘ D>‘ #B ‘8?; ‘ ED?#8 4‘ ‘ #B ;‘ K# = 4‘ #B ‘ ?!‘ #B ‘ B>; ‘ ?!‘ ;E @"‘ Q =A#?=‘ D>‘ #B ‘8?; ‘% # ;4‘ #B ‘ ?!‘ #B ‘ B>; ‘ ?!‘ & =DC;AB‘ 0 =8 #BA?E‘ = ‘ / D8 ‘ >‘ #B ‘0?; ‘ ?! ‘ %B ‘ ?!‘ #B ‘ B>; ‘ ?!‘ +C<!; ‘ = ‘ 2 A9‘ #?C=‘ = ‘ # E ;#; ‘?!‘ 1 ;"C DC;AB‘ D>‘ #B ‘ & ;8 ‘ ?!‘ == = 8 ‘%B ‘?!‘ #B ‘ B>; ‘?!‘ ; ‘ = ‘ =L !; E‘ D>‘ #B ‘ & ;8 ‘ ?!‘ &A8 =A#?C=‘ %B ! ‘ ?!‘ #B ‘ B>; ‘?!‘ 0 = ;"4‘ E #B‘ #B ;# =‘ ?C#‘ ?!‘ #B ‘ B>; ‘?!‘ (# ;8 =A‘ = ‘ 8 @"< = =4‘ D>‘ #B ‘ 0?; ‘ 'B =4‘ %B ! ‘ ?!‘ !!>! ‘ = ‘ 1 =;? ‘ D>‘ (‖‘ B ;8 ‘ 8" #‘ %B ! ‘ ?!‘ #B ‘ B>; ‘ ?!‘ / ;#B‘ D>‘ #B ‘8 ; ‘?!‘ 8 ;‘ %B ! ‘ ?!‘ #B ‘ B>; ‘ ?!‘ !!?;! ;‘ 1 =@ ; = ‘ = ‘J *9 ; B 88‘ K ;# ?!‘ D ; =‘ B>; ‘D>‘ #B ‘0?; ‘ ?88?‘ %B ‘ ?!‘ #B ‘ B>; ‘?!‘ ; !! ‘ = ‘ ‘K ;# ?!‘ D ; =‘ B>; ‘ D>‘ #B ‘ * *‖ ?!‘ !!?;D ‘ = ‘ K9‘ K?>=# ‘ ?<< ! ?= ‘#?‘ D ‘A; =# ‘ #?‘ #B <‘ #?‘ D ‘ K# = ‘ ?!‘ #B ‘ ‘ ?;! < =‘ #?‘ D ‘ A= ‘ =‘ #B ;‘ = < ‘D>‘ #B ‘ +C" ‘?!‘ < 8#?C=‘ #B ;‘ K; L =# 8= ‘ @ =A‘ '‘ #B ‘ K;?K?;# ?= ‘ 88?@ # ‘ #?‘ #B <‘ !?;‘ #B ;‘ #;?CK ‘ X&F@ K# ?= ~ ; ‘ B?;# ?!‘ #B ‘ =C<D ;‘ EB ;?!‘ @B‘ #;?CK‘ ‘ #?‘ @?= !#4 %B ;!?;‘ #B ‘ & # # ‘ +? ‘?; =‘ #B #‘ =>=@‘ ?!‘ #B ‘B?;! ‘#?‘ D ‘ ?C#; " ‘D>‘ #B ‘ B>; ‘?!‘ (# ;8 =A‘ = ‘ 8 @"L < = =4‘ E #B‘ #B ‘#?‘ 8Fi‘ ?C#; @" ‘D>‘ #B ‘ B>; ‘?!‘ &8A = ‘ ;= ‘ = ‘#B ‘ > ‘?!‘ 1 ! ‘%B ‘& ;8 ‘?!‘ (!?;#B4‘ = ‘ #B ‘ 8?; ‘ 0? ##‘ #B ;‘ + ! ?=‘ ?!‘ *=C ;= ‘ = ‘ ?! 4‘ %B ‘; #‘ ?!‘ #B ‘ B>; ‘?!‘ ?! 4‘ = ‘ #B ‘ 8 >; ‘ ?!‘ (?C#B ;8 = ‘ = ‘ #B= ‘ &FL # = =A‘ =‘ 88‘ #?‘ ?=# ‘ !> ‘B?;! 4‘ 9+ > ‘ K;?K?;# ?= 88>‘ <?=A #‘ #B ‘ ‘ K# = ‘ !?;‘ < " =A‘ CK‘ #B ;‘ #;?CK ‘ #?‘ @?= !#‘ @B‘ ?= ‘ ?!‘ ! !# ‘ B?;! 4‘ = ‘ !?;‘ #B #‘ !! @#‘ #B #‘ J ?;‘ CAB‘ C=# =4‘ =?< = # ‘ <C # ;‘ < # ;‘ D>‘ #B ‘ & # # 4‘ ?;‘ !C@B‘ K ;8?= ‘ ‘ B ‘ B 88‘ KK?>=#‘ B 88‘ ; @ ‘ #B ‘B?;! < =‘ #‘ #B ‘ B ‘D=;AB ‘?!‘ #B ‘ ; K @9‘ # ‘ 8C% ‘ @?=!?; = ‘ #?‘ #B ‘ ‘ @#4‘ CK?=‘ #B ‘ > ‘ #B ; =‘ < =# ?= 4‘ = ‘ D; =A‘ #B ‘ < =‘ CK‘ #?‘ #B ‘ ; K @# ‘ #=C K 4‘ @ ? 8 =A‘ ‘ #B ‘ ‘ <C # ;‘ < # ;‘ B 88‘ > ‘ #B ‘ ‘ ‘ @‖ =# ‘ !> ‘ B?;! ‘ !?;‘ < " =A‘ CK‘ #B ‘ ;# K @# b ‘ #;?CK ‘ =‘ < == ;‘ D? ‘ < =# ?=

$ 00 2 &(‘ #B ‘ ?<< ! ?=‘ A; =# ‘ #?‘ #B ‘ & ;8 ‘?!‘&A1CA#?C= ‘#?‘D ‘ K# = ‘?!‘?= ‘?!‘#B ‘ ‘#;?CK ‘?!‘B?;!

% &‘ & # # ‘ ?!‘ #B ‘ 1 =A ?< ‘ ?!‘ (@?#8 = ‘ 9‘ K? =A‘ K @ 88‘ #;C #‘ = ‘@?=! =@ ‘ =‘ #B ‘! 8 # ‘ @?C; A ‘ = ‘A?? ‘@?= C@#‘ ?!‘ & ;8 ‘?!‘ &A8 =A#?C= 4‘ ‘ =?< = # ‘ @?= # #C# ‘ = ‘ KL K? =# 4‘ = ‘D>‘ #B ;‘ K; ! =# ‘ +? ‘ =?< = # ‘ @?=9‘ !# #C# ‘ = ‘ KK? =#‘ B <4‘ %?‘ D ‘ K# =‘ ?!‘ ?= ‘?!‘ #B ‘ #;?CK ‘?!‘ B?;! ‘ KK? =# ‘ D>‘ #B ;‘ @# ?!‘ #B ‘ #?!‘#B ;‘ K; =# ‘ %?‘ D ‘ =?E‘ 8 ‘@?=! !# =A‘ ?!‘ ! !#>‘ B?;! ‘ E #B‘ !C88‘ K?E ;‘ #?‘ #B ‘ ‘ & ;8 ‘ ?!‘ &A8 =A#?C= ‘ #?‘ ?<< = ‘ = ‘ &F ;@ ! ‘ #B ‘ ‘ #;?CK‘ D?#B‘ ?!! @ ; ‘ = ‘ ?C8 ; ‘ @ ; !C88>‘ = ‘ 88 A =#8>‘ = ‘ #?‘ " K‘ #B <‘ =‘ A?? ‘ ?; ;‘ = ‘ + @ K8 = 4‘ = ‘A = ; 88>‘ #?‘ @#‘ = ‘ +? ‘ 88‘ #B =A ‘ ?<K # =#‘ = ‘ *=@C<D =#‘ !?;‘ =>‘ K# = ‘ ?!‘ B?;! ‘ #?‘ +? ‘ = ‘K ;!?;< ‘ NC ; =A‘B ; D>‘ #B ‘ =! ; ?;‘ ?!! @ ; ‘ = ‘ !?C8 ; ‘ ?!‘ #B ‘ ‘#;?CK ‘ #?‘ ?D >‘B <‘ ‘ #B ;‘ K# = ‘ = ‘ #B ‘ & # # ‘ ? ‘ B ; D>‘ @?<< = ‘ = ‘ ; NC ; ‘ #B ‘ ‘ & ;8 ‘ ?!‘ &A8 =A#?C= 4‘ #?‘ ?D! ; ‘ = ‘ K;?! @C# ‘ !C@B‘ ?; ; ‘ = ‘ ; @# ?= ‘ ‘D ‘ B 88‘ ; @ ‘!;?<‘ #B <‘ !;?<‘ #>< ‘ #?‘ #>< ‘ ?;‘ !;?<‘ ?;‘) = ; 8‘ ‖1 >‘ K; 9‘ ! =# ?<< = ;‘ =‘ @B ! ‘ ?!‘ #B ‘ !?;@ ‘ ?!‘ #B ‘ 1 =A ?< ‘ ?;‘ =>‘ ?#B ;‘ ?<< = ;‘ =‘ @B ! ‘ !?;‘ #B ‘ #>< ‘ ?;‘ =>‘ CK ; ?;‘ ?!! @ ;‘ @@?; =A‘ #?‘ #B ‘ ;C8 ‘ = ‘ + ! KB= ‘?!‘E ;;4‘ = ‘#B ‘& # # ‘ + 9‘ @8 ; ‘#B #‘ #B ‘ ?<< ! ?= ‘88 88‘ ?=# =?E‘ C=# 88‘ #B ‘ 1 =A ‘ # ‘ B 88‘ D ‘K8 ‘ #?‘ A; =#‘ ‘= E‘ ?<< ! ?= ‘!?;‘ #B ‘ ‘#;?CK‘ ?;‘ ?#B ;E > ‘ + L K? ‘#B ;?!‘ (A= ‘D>‘ E ;; = ‘ = ‘ =‘ = < ‘?!‘ #B ‘ & # # ‘D>‘ #B ‘ +C" ‘?!‘ < 8#?= ‘#B ;‘ K; =#

((&(‘ ?!‘ #B ‘ 8>" ‘ # =?;‘) ; =# ‘ #?‘ #B ‘ & ;8 ‘?!‘ = = 8 4‘ #B ‘ 8?; ‘ ED?#8 4‘ #B ‘ 8?; ‘ % # ;4‘ #B ‘ 8?; ‘ ?! ‘ #B ‘ 8?; ‘ 'B =‘ #B ‘ 8?; ‘ ?88?‘ #B ‘ < # ;‘ ?!‘ $?;D ‘ = ‘ #B ‘ 8 ; ‘ ?!‘ 8 ;

$ * 2 &(‘ #B ‘ ?<< ! ?= ‘A; =# ‘ #?‘ ?;‘ (<C 8‘ (# E ;# #?‘ D ‘ 8 # = =#‘ ?!‘ #B ‘ #;?CK‘ ?!‘ B?;! ‘ C= ;‘ #B ‘ ?<< = ‘ ?!‘ #B ‘ & ;8 ‘ ?!‘ &A9‘ 8 =A#?=

% &‘ & # # ‘ ?!‘ #B ‘ 1 =A ?< ‘ ?!‘ (@?#8 = ‘ 9‘ K? =A‘ @@ C88 #;C #‘ = ‘ @?=! =@ ‘ <‘ #B ‘ ! 9‘ 8 # ‘ ?C; A ‘ = ‘A?? ‘@?= C@#‘ ?!‘ ?;‘ (<C 8‘ (# E ;#‘ =?< = # ‘ ?=!# #C#‘ = ‘ KK?>=# ‘ = ‘ D ‘ #B ;‘ K; ! =# ‘ +? ‘ =?< = # ‘ ?=!# #C#‘ = ‘ K?>=# B <‘ #?‘ B ‘8 # == =#‘ ?!‘ ?= ‘?!‘ #B ‘ !;?CK ‘ ?!‘ B?;! ‘ KK?>=# ‘D>‘ #B ;‘ @# ?!‘ #B ‘ + # ‘ ?!‘ #B ;‘ K;@!@‖=# ‘ #?‘ B ‘ =?E‘ 8 ‘C= ;‘ #B ‘ ?<< = ‘?!‘ #B ‘ & ;8 ‘ # !‘ &A8 =A#?C=‘ E #B‘ !C ' ‘ / ?E ;‘ #?‘ #B ‘ ‘ ?;‘ (<C 8‘ (# E ;#4‘ =‘ B! =@ ‘ ?!‘ B ‘ @ KL # = ‘ D? ‘= < ‘ %?‘ ?<< = ‘ = ‘ &F ;@ ! ‘ #B ‘ ‘ #;?CK ‘ D?#B‘ =! ; ?;‘ ?!! @ ; ‘ = ‘ ?C8 ;

X !C ' >' = ' 88 A =#8>' = ' #?' " K' #B <' =' A?? ' ?; ;' = ' + !@ K8 = 4 = ' A = ; 88>' #?' @# = ' +? ' 88' #B =A ' @?<K # =# = ' *=@C<B =# !?;' =>' ' # = =# ?!' B?;! ' %?' +? ' = ' / ;!?;< ' L NC ; =A' B ; D>' J ' *=! ; ?;' ?!! @ ! ' = ' !?C8 ; ' ?!' #B ' ' #;?CK 4 #?' ?D >' B <' =' D! =@ ' ?!' #B ;' ' @ K# = ' = ' ' & # # ' +? ' B ; D>' ?<L < = ' = ' NC ; ' #B ' (' ?;' (<C 8 (# E ;# #?' ?D! ; ' = ' K;?! @C# ' C@B' ?; ; ' Q + ; @# ?= ' ' B ' B 88' ; @ ' !;?<' B ' ' K# =4 ?;' =' B ' (! ' !;?<' #B ' ' & # # ' !;?<' !>< ' #?' !>< ' ?;' !;?<' ?;') = ; !8 1 >' K; ! =# ?<L < = ;' =' @B ! ' ?!' #B ' !?;@ ' ?!' #B ' 1 =A ?< 4 ?;' =>' ?#B ' ?< < = ' =' @B ! ' !?;' #B #>< 4 <;' =>' CK ?;' ?!! @ ;4 ! @?; =A' #?' #B ' ;C8 ' = ' + 8D K8 = ' ?!' E ;;' = ' #B ' & # # ' + @8 ; ' #B # #B ' ?< < ! ?= ' B 88' @?=# =?E' C=# 88' #B ' 1 =A ' # ' B 88' D ' K8 ' #?' A; =# '= E' ?< < !9 ?= ' !?;' #B ' ' #< CK ' ?;' ? ;E > ' + ? ' #B ;?!' (A= 'D>' E < = ' = ' ='= < ' ?!' #B ' & L # # ' D>' #B ' + C" ' ?!' < 8#?C= ' #B ;' K; ! =#

= ' &F ; ! ' #B ' ' #;?CK ' @ ; !C88>' = ' 88 9 A =#8>' = ' #?' 1 K' #B <' =' A?? ' ?; ;' = ' !L @ K8 = 4 = ' A = ; 88>' #?' @# = ' +? ' *=' 88' #B =A ' @?<K # =# = ' *=@C<D =# !?;' =>' @?;?= # ?!' B?;! ' %?' +? ' = ' K ;!?;< 4 NC ; =A' B ; D>' #B ' ?C89 ; ' = ' ?#B ; ' ?!' #B ' (' #;?CK ' %?' ?D >' B <' =' D! =@ ' ?!' B ' ! ' K# = ' = ' 8 # = =# ?!' #B ' ' #;?CK ' = ' #B ' & # # 9 +? ' B ; D>' ?<L < = ' = ' ; NC ; ' #B ' ' E' ?=#A?< ; ' %?' ?D! ; ' = ' K;?! @C# ' !C@B' ?; ; ' C= ' ; @# ?= ' ' B ' ! 88' ; @ ' !;?<' #B ' ! ' K# = ' = ' ! 9 # == =# ?;' =' #B ;' D! =@ ' !;?<' #B ! ' & # # ' !;?<' #>< ' #?' #>< ' ?;' !;?<' ?;') = ; 8' 1 >' K; !?=# ?<< = ;' =' @B ! ' ?!' #B ' !?;@ ' ?!' #B ' 1 =A ?< ' ?;' > ' ?#B ;' ?< = = ;' =' @B ! ' !?;' #B ' #>< ' ?;' =>' CK ; ?;' ?!! @ ;' @@?; L =A' #?' #B ' ;C8 ' = ' + !@ K8 = ' ?!' E ;;4 B ' #B ' & # # ' + @8 ; ' #B # #B ' ?< < !? ?=' !B 88' ?=# L =?E' C=# 88' #B ' 1 =A ' # ' B 88' D ' K8 ' #?' A; =# = E' ?< < ! ?= ' !?;' #B ' ' #;?CK ' ?;' ?#B ;E > ' + K? ' #B ;?!' (A= ' ' E ;; = ' = ' ' =&!! ' ?!' #B ' & # # 'D>' #B ' + C" ' ?!' 8#?C=' #B ;' K; =#

((&(' ?!' #B ' 8>" ' # =?;' A; =# ' #?' #B ' K ;!?= ' !?88?E =A' W' #?' 2 88 <' C;= # ?!' 8!?C;' #?' D ' 8 # == =# #B ' ?CK ' ?<L < = 'D>' #B ' 8?; ' ED?#8 4 F 8 F = ;' >' !?= ' #?' #B ' & ;8 ' ?!' %E 8 ' 8 > # = =# ?!' #B ' #;?CK ' C= ;' #B ' ?< < = ' ?!' #B ' 8?; ' # ;4 7 2 88 <' ?@B; ;' ?!' 1 (8< ;?=?# ' 8 # B<# ?!' #B ' #;?CK ' ?< < = 'D>' #B ' 8?; ' ?! 4 2 8L 8 <' O?@"B ;# ?!' 8 AB?;= ' ?!' #B ' #;?CK ' ?<L < = 'D>' #B ' & ;8 ' ?!' = = 8 4 2 88 <' 9 < #?= ' >?C=A ;' ?!' K8?@B' ?!' #B ' #;?CK ' ?<L < = 'D>' #B ' 8?; ' 88B =4 /?88?@" ?!' #B # 8"' ?!' #B ' #;?CK ' ?< < = 'D>' #B ' 8 ; ' ?!' 8 ;4 = ' 2 8B <' / ; #?C= ' !?= ' #?' #B ' + 9 @ ! ' (;' ?D ;# / ; #?C= ' ?!' #B # 8"' #?' D ' 8 # == =# ?!' #B ' #;?CK ' C= ;' #B ' ?< < = ' ?!' #B ' 8?; ' ?88?4

J?B= #?C=' >?7 ?!' 2 #; E' ?;?= # #?' #B ' & ;8 ' ?!' = = 8 4 ?!?' ?!' 8!#?= ' ?;?= # #?' #B ' 8?; ' ?! 4 J < ' < 8#?C= ' !?= ' #?' #B ' 9 @ !# 8 ; ' ?!' =A?C;' ?= ' ?!' #B ') =#8 < =' ?8C=L # ; ' #B # @ < ' ? ;' E #B' #B ' $; =@ ' ?!' ; =A ' =?E' 1 =A' ?!' &=A8 = ' #?' D ' ?;?= # #?' #B ' 8?; ' ?88?4 ' 2 ;' ?!' 1 ;"! 8 ' ?;?= # #?' #B !?; ' 88B =' = ' 2 88 <' = ;!?= ' ?!' / ;9 # @"' #?' B ' ?;?= # #?' #B ' 8 ; ' ?!' 8 ;

$ 00 2 &(' #B ' ?< < ! ?=') ; =# ' #?' CAB' ?=#A?< ; ' ?!' ?88 ! 8 ' #?' D ' ?;= # ?!' #B ' #;?CK ' ?!' B?;!?' C= ;' #B ' ?< < = ' ?!' #B ' & ;8 ' ?!' &A8 =A#?C=

$ 00 2 &(' #D ' ?#=< ?=' A; =# ' !?' J < ' 8?; ' =AC ' #?' D ' ?88?= B' ?!' ' A < =# ?!' !??# @?= !# =A' ?!' #E 8 ' BC! ; 4

W,, 6 , + ' +' & ')+*' * +,E+*,

% &' & # # ' ?!' #B ' 1 =A ?< ' ?!' (@?#8 = ' 9 K? =A' K @ 88' #;C # = ' @?=! =@ ' ='#B ' ! 8 # ' ?C; A ' = ' A?? ' @?= C@# ?!' E' ?=#A?< ; ' ?!' ?88 ! 8 ' EB?<' & ;8 ' ?!' &A8 =#?C= B ' ?!! ; ' #?' D ' @?;= # ?!' #B ' #;?CK ' ?!' B?;! ' %?' D ' @?<< = ' D>' B <' ' =?< = # @?= # #C# Q KK?>=# ' = ' D ' #B ;' K; ! =# ' +? ' =?< = # ?=!# #C# = ' KK?>=# B <' #?' D ' ?< # ?!' #B ' #;?CK ' ?!' B?;! ' KK?>=# ' D>' = ' @# ?!' #B ' & # # ' %?' D ' =?E' 8 ' C= ;' #B ' ?<L < = ' ?!' #B ' ' & ;8 ' E #B' !C88' K?E ;' #?' #B ' ' E' ?=#A?< ; ' *=' D! =@ ' ?!' B ' K# = ' D? ' = < ' = ' ?!' B ' 8 # = =# #?' @E=< =

% &' & # # ' ?!4 #B ' 1 =A ?< ' ?!' (@?#8 = ' @?=L ; =A' #B # J < ' O?; ' =AC ' B ' < ' = ' ?!! ;' %?' 8 ' ' A < =# ?!' #E 8 ' BC= ; ' !??# %?' D ' ?< < = ' D>' B <' ' ?'?= +' = ' #?' B ' *< K8?> ' ='#B ' ; @ ' ?!' B ' # ' 2 88' 8 <' D>' #B ' A; @ ' ?!') ? ' 1 =A' ?!') ; # ; # =' !!; =@ ' = ' *; 8 = 4 = ' #B ' & # # ' K?! =A' K 88' #;C # = ' @?=! =@ ' ='#B ' ! B# ' @?C; A ' = ' A?? ' @?= C@# ?!' #B ' ' J < ' O?; ' =AC ' ' #B ;!?; ' =?< = # ' @?= # #C# ' = ' KL K?>=# 4 = ' >' #B ! ' K; ! =# ' +? ' =?< = # ' @?=!# #C# ' ' ' KK?>=# #B ' ' J < ' O?; ' =AC ' #?' D ' ?'?= 88' ?!' #B ' ' A < =# ?!' !??# KL K?>=# ' D>' #B ' @# ?!' #B ' ' & # # ' ?!' #B ' # ?!' #B ' K; ! =# ' %?' D ' 8 ' D>' B <' ' ! ' ' @?= !# =A' ?!' #E =#>' @?<K = ' = ' F# ' < ='

)+ +>11, + ' 9 ', 7+* ' +,' & ' =+* . ' ' 0 ' +' / ') .+ D' +,' 5 H 6 ' +,',++

=@ #?B @?C=#?!1 =<C ; #B ; ?8
* = 88 = #?B ;; K @# ?<< = =A?!! @ ;
= !C;#B ;#B & # # +? B ; D>@?<< =
= ; NC ; #B @?C=#?!1 =<C ; %?D
! ; = K;?! @C# !C@B?; ; = ; @# ?=
B B 88 ; @ !;?<#>< #?#>< !;?<#B <
?;!;?< ?;A = ; ' 1 >K; ! =# ?<< = ;
=@ ! ?!#B !?;@ ?!#B & =A ?< ?; =>
?#B ; @?<< = ; =@ ! !?;#B #>< #?; =>
CK ; ?; ?!! @ ; # @@?; =A#?#B ;C8 = + !8
KB= ?!E ;; = #B & # # +? + @8 ;#B #
@B@?<K =>D?#B?!! @ ; = !?C8 ; #? =# ;
=K >!# ;#B < <C # ; @?<K8 # =
#B ! 8 ?!! @ ; !# ;#B EB?'; A < =# <C!8
# ; # = #B # #B @?<< ! ?= B 88 @?=# =C #
C=# 88 #B 1 =A <? # &F@ 88 =# # B 88D #
K8 #?A; =# = E@?<< ! ?= !?;#B
A < =# ?; ?#B ;E > K?! #B ;?!(A=
>E ;; = = = =< ?!#B & # # >#B
+C" ?! < 8#?C=#B ;K; ! =#

((&(?!#B 8>" # =?;A; =# #?
#B & ;8 ?! ;A>8 #B & ;8 ?! ;;# %B & ;8
?!)8 =@ < # %B 0?; (#; #B= ;# %B 0?;
;A = # %B 8?; 8 =#>; = DC8 ; ?!); =#

$ 00 2 &(#B ?<< ! ?= A; =# #?#B 8?;
!!D;; !# ;#?D 8 # == =# ?8?= 88?!#B A L
< =# C= ;#B ?<< = ?!#B 0?; 8 =#>;

)+66, +
%+ &=+*.
J+**, * .
7& * %+
/ =
)++ +,
& 5 0H
6 +,
,++ $

% && # # ?!#B 1 =A ?< ?!(@?#8 = g
K?! =A K 88#;C!# = @?=! =@ =#B ! 8 #
@?C; A = A?? @?= C@# ?!2 88 <8?; !!?;g
;EB?< 0?; 8 =#>; B ?!! ; #?D
8 # == =# @?'?= 88 ?!#B ; A < =# #?D 8
D>B < =?<< = # @?=!# #C# = KK? =#
= D #B ;K; ! =# +? =?< = # @?=!# #C# =
KK?>=# #B 2 88 <8?; !!?;; !# ;#?D 8 g
B= =# ?'?= 88 ?!#B ; A < =# ?!!??# Kg
K?>=# D> = @# ?!#B & # # #?D
8 k 8?; 8 =#>; E #B!C' K?E ;
#?#B 2 88 <8?; !!?;; !# ; *= D! =@ ?!
#B 0?; 8 =#>; B K'?= '%? ?<< =
Q &F ;@ ! #B ; A < =# D?#B?!! @ ; = ''
!?C8 ; 8 # == =# ?'?= 88 = K# =
@ ; !C'> '8A =#8> = #?1 K #B < =
A?? ?; ; B !@ K8 = = #? ? = @# '
#B =A @?<K # =# = *=@C<D =# !?; =>8 # =9
= =# ?'?= 88 ?!!??# #? ? = K ;!?;< g
NC ; =A = ?<< = =A B ; D> '=! ; ?;?!! L
@ ; = !?C8 ; ?!#B ; A < =# #?A C
?D =@ #?#B 8 # == =# ?'?= ' *=
D! =@ ?!B ?'?= ' = ! ; ;#B & # #
+? B ; D> ?<< = = ; NC ; #B 0?;
!!?;; !# ; 8 # == =# ?'?= ' ?!#B ; A L
< =# 4%? ?D! ; = K;?! @C# !C@B?; ; =
; @# ?= B B '; @ !;?<#>< #?#><
!;?<#B 8?; 8 =#>; !;?<#B & # #
?;!;?< ?;) = ; ' 1 >K; ! =# ?<< = ;P

=@ ! ?!#B !?;@ ?!#B 1 =A ?< ?; =>
?#B ; @?<< = ; =@ ! !?;#B #>< ?; =>
CK ; ?; ?!! @ ; @@?; =A#?#B ;C8 = + !8
@ K8 = ?!E ;; = #B & # # ? @8 ; #B #
@B@?<K =>D?#B?!! @ ; = !?C8 ; *
=# ; =K > !# ;#B ! < <C!# ; @?<K8 #4
= #B ! 8 ?!! @ ; !# ;#B EB?' A < =#
<C # ; = #B ##B @?<< ! ?= 88 '@?=# =C
C=# '#B 1 =A <? # &F@ ' =# # B 'D
K8 #?A; =# = E@?<< ! ?= !?;#B
A < =# ?; ?#B ;E > K?8 #B ;?!(A=
>E ;; = = =< ?!#B & # # >#B
+C" ?! < 8#?C=#B ; /; =#

((&?!#B 8>" # =?;A; =# #?
J?B= ?E #?C=>?C=A ;?!#B # '# D ' # g
= =# ?'?= ''?!#B &;8 ?!)8 =@ < ; A < =#

% = ?<< ! ?= =! ?C; ?!
); @ #B +C" ?! < 8#?C=!?;) ;; 9
!?= =#B !#8 ?! ;; =

% & # =A?!#B & # # @?= ; =A#B # #B 5)
#8 ?! ;; = D 8?=A =AB ; # D ' #?#B +C"
?! < '#?C= # ; /8 @ ?!A; # #; =#B =
*<K?;# =@ = #B #>< ?!E ;;# = < >D ?!
A; # C #?#B * 8 = = ?C=#; >*=@ @ =>
= ! ?= B 88 B KK =!;?<; 8 = = #B # B
); @ !; 8>?!! ; *; ! ; @ #?#B ; ?> ' L
C=A 2 '8 <# 3C = ;> = #?#B

& # # = B #B !>; #B # A ; !?= D
KC# =#B @ #8 # = #B # #B < =< >D
!C;= B E #B @?<K # =# =C<D ; ?! ?C8 ;
= E #B !C# D8 K;? ! ?= # ?#B # # < >D
< C !C'# #B #>< !?;#B ; # ;g
?@ = #B A?? = D = ! # ?!#B 1 =A ?<
%B ;!?;#B (& # # ? B ; D>A K?E ;
= ?<< ! ?= #?#B +C" ?! < 8#KC=
#?8 #B =C<D ; ?!!?C;#> = = 8! B ; L
D>=?< = # ?<< ! ?= # = KK?>=#
); @ #?D K# = = @?<< = ;?!#B
@?<K =>E[/?E ; #?B <#?=?< = # KK?>=#
= ?<< ! K= # #B = @ ! ;>!CD?; = # ?!! L
@ ; C= ;B <!?;EB?<B B 'D =!E ; D8
!?;#; = =A &F ;@ ! =A = @?<< = =A#B <
= !?; < =# = =A = ! = =A?!#B
#8 #?#B = !?; ! # = !?; =@?C; A g
=A B); @ = ? =A = K ;!?;< =A ?A??
= @@ K# D8   ; @ %B & # # +? B ; D>
+ @8 ; = 88?E #B +C" ?! < '#?C=
B *=! ; ?;?!! @ ; = @?<K = !?; ! #? =# ;
CK?= KCD'@# K > # #B >?!#B ; ! ; # = g
?CW = !;?<#B =@ !C;#B #?@?=# =?E C= ;
/ > > = EB'8 #B A ; !?= D !@B ;A
= A = ; '>+? B ; D>*<K?E ;#B C"
?! < '#?C= = B ?<K =>!?;! #? @# B
? = '#B<A !?;#B ! =@ ?!#B @ #8
#?#B = D? ## ?C= #B) ? ;=?C;
= K# = ?! =>?#B ;!!?;# ?;) ; !?= E #B9

/

=ˢ ,-ˢ 1 =A ?= ˢ ; ˢ D ˢ ;# Eˢ ?!ˢ #B ˢ ˢ #;C #ˢ
*<K?E ; ˢ #?ˢ @#ˢ = ˢ ? ˢ = ˢ #B ˢ & # # ˢ ? ˢ
+ @8 ; ˢ #B #ˢ #B ˢ ?<< ! ?= ˢ B 88ˢ ??=# =?Eˢ C=9ˢ
# 88ˢ #B ˢ 1 =A ˢ # ˢ B 88ˢ D ˢ K8 ˢ #?ˢ A; =#ˢ
ˢ = Eˢ ?<< ! ?= ˢ ?;ˢ ?#B ;E > ˢ A= ! ˢ B ⅈˢ
K8 F=; ˢ #B ; = =#ˢ (A= ˢ ˢ E ;; = ˢ = ˢ =ˢ
= < ˢ ?!ˢ #B ˢ & # # ˢ D>ˢ #B ˢ ˢ + C" ˢ ?!ˢ < 9ˢ
#? =ˢ #B ;ˢ K; =#

%ˢ = ˢ ?<< ! ?=ˢ =ˢ ! ?C; ˢ ?!ˢ *B
& ;8ˢ ; B ˢ !?;ˢ ˢ) <!?= ˢ =ˢ #B ˢ !#8
?!ˢ + C==?## ;

ˢ ˢ % &ˢ # =Aˢ ?!ˢ #B ˢ & # # ˢ @?= ; =Aˢ #B #ˢ #B ˢ
@ #8 ˢ ?!ˢ + C==?## ;ˢ D 8?=A =Aˢ B ; # D8>ˢ #?ˢ #B ˢ
& ;8 ˢ ; B 88ˢ ˢ ˢ K8 @ ˢ ?!ˢ A; #ˢ #; =#Bˢ = ˢ
*<K?;# =@ ˢ =ˢ #B ˢ #><ˢ ?!ˢ E ;;ˢ = ˢ B #Bˢ D =ˢ ?!ˢ
A; #ˢ C! ˢ #?ˢ #B ˢ ?C=#; >ˢ =ˢ !?;< ;ˢ #>< 4ˢ < =>ˢ
B =Aˢ B 8# ; ˢ #B < 8 ˢ #B ;4ˢ < !#ˢ #B ˢ
A; # #ˢ =A ; ˢ ?!ˢ @ 88ˢ @?<<?# ?= ˢ = ˢ #B #ˢ
#B ˢ ˢ& ;8 ˢ B ˢ !; 8>ˢ ?!! ; ˢ B ˢ ! ; @ ˢ #?ˢ #B ;ˢ
?>ˢ 88ˢ # ˢ 1 =Aˢ 2 88 <ˢ = ˢ 3C =ˢ ;>ˢ
= ˢ #?ˢ #B ˢ ˢ & # # 4ˢ = ˢ B #Bˢ >; ˢ #B #ˢ
ˢ A ; !?= ˢ D ˢ KC#ˢ =#?ˢ K ˢ ˢ @ #8 4ˢ = ˢ #B #ˢ #B ˢ
< =ˢ < >ˢ D ˢ !C;= B ˢ E #Bˢ ˢ @?<K # =#ˢ =C<L
D ;ˢ ?!ˢ !?C8 ;ˢ = ˢ E #Bˢ !C # D8 ˢ K;? ! ?= 4ˢ !?ˢ
#B #ˢ #ˢ < >ˢ D ˢ < ˢ C! !C88ˢ #ˢ #B ˢ #>< ˢ !?;ˢ #B ;ˢ
* # ˢ ! ; @ ˢ Qˢ #B ˢ A?? ˢ = ˢ D = ! # ˢ ?!ˢ #B ˢ
1 =A ?< ˢ %B ;!?; ˢ #B ˢ ˢ & # # ˢ + ? ˢ B ; D>ˢ
A ˢ K?E ;ˢ = ˢ ?<< ! ?= ˢ #?ˢ #B ˢ ˢ & ;8 ˢ
B8 ; 3 'ˢ #?ˢ 8 ˢ #B ˢ =C<D ;ˢ ?!ˢ F# ˢ < =4ˢ = ˢ
8! ˢ B ; D>ˢ =?< = # ˢ ?< ! ?= # ˢ = ˢ KK?>=# ˢ
#B ˢ ˢ & ;8 ˢ #?ˢ D ˢ K# =ˢ = ˢ ?<< = ;ˢ ?!ˢ
#B ˢ ˢ ?<K =>ˢ E #Bˢ / ?E ;ˢ #?ˢ B <ˢ #?ˢ =?< = # ˢ
KK?>=#ˢ = ˢ @?<< ! ?= #ˢ #B ˢ = @ ! ;>ˢ !CD?; = #ˢ
?!! @ ; ˢ C= ;ˢ B <ˢ !?;ˢ EB?<ˢ B ˢ B 88ˢ D ˢ = E ;9ˢ
D8 ˢ !?;ˢ #; = =Aˢ &F ;@ ! =Aˢ = ˢ @?<< = =Aˢ
#B <4ˢ = ˢ !?;ˢ < =# = =Aˢ = ˢ ! = =Aˢ ?!ˢ #8 ˢ
ˢ @ #8 ˢ #?ˢ #B ˢ = ˢ !?; ˢ = ˢ !?;ˢ =@?C9ˢ
; A@ =Aˢ #B ˢ ˢ& ;8 ˢ =ˢ ? =Aˢ = ˢ K ;!?;< =Aˢ
?ˢ A?? ˢ = ˢ @@ K# D8 ˢ ˢ ; @ 4ˢ %B ˢ & # # ˢ + ? ˢ
B ; D>ˢ @8 ; ˢ = ˢ 88?Eˢ #B ˢ ˢ & ;8 ˢ B ˢ =! L
; ?;ˢ ?!! @ ; ˢ = ˢ ?<K =>ˢ !?;! ˢ #?ˢ =# ;ˢ CK?=ˢ
#B ˢ KCD8 @#ˢ K >ˢ #ˢ #B ˢ + >ˢ ?!ˢ #B ;ˢ ! ; #ˢ = @9ˢ
?CW ˢ = ˢ ! [?<ˢ #B =@ ˢ !C;#Bˢ #?ˢ @?=# =C ˢ C= ;ˢ
K >ˢ >ˢ = ˢ EB 88ˢ #B ˢ ˢ) ; !?= ˢ D ˢ @B ;A ˢ
= ˢ A9 =@; 88>ˢ +? ˢ B ; D>ˢ *<K?E ;ˢ #B ˢ ˢ
& ;8 ˢ = ˢ ?<K =>ˢ !? 9! ˢ %?ˢ @#ˢ = ˢ ? ˢ =ˢ 88ˢ
#B =A ˢ !?;ˢ ! =@ ˢ ?!ˢ #B ˢ ˢ @ #8 ˢ #?ˢ #B ˢ = ˢ
D? ˢ ##ˢ ?C= 4ˢ ˢ#B ˢA? <?C; ˢ = ˢ@ K# = ˢ
?!ˢ =>ˢ ?#B ;ˢ !?;#ˢ ?;ˢ) ; !?= ˢ E #B =ˢ #B ˢ* =A ?< ˢ
;ˢ D>ˢ ;#C ˢ ?!ˢ #B ;ˢ ˢ #;C #ˢ *<K?E ; ˢ #?ˢ @#ˢ
= ˢ ? ˢ = ˢ #B ˢ & # # ˢ ? ˢ + @8 ; ˢ #B #ˢ #B ˢ
?<< ! ?= ˢ B 88ˢ @?=# =C 4ˢ C=# 88ˢ #B ˢ 1 =A ˢ L
ˢ B 88ˢ D ˢK8 ˢ #?ˢ A; =#ˢ ˢ= Eˢ ?<< ! ?= ˢ
(A= ˢ >ˢ E ;; = ˢ < ˢ =ˢ = < ˢ ?!ˢ #B ˢ& # # ˢ D>ˢ
#B ˢ + C" ˢ# !ˢ *8 < 8#?= ˢ #B ;ˢ / =ⅈ @=#

% &ˢ < # =Aˢ ?C= @ ˢ #?ˢ # =ˢ ˢ @8?@"ˢ #?L
<?;;?E

ˢ ˢ ' * (=

ˢ>)@ˢ :+0!% ' * (Z

) * ˢ # =Aˢ ?!ˢ #B ˢ & # # ˢ + ? ˢ A ˢ E ;; = ˢ
0#?ˢ < ?;ˢ) ?;A ˢ < ?#ˢ KC#>ˢ) ? ;=?C;ˢ ?!ˢ #B ˢ !? 8> ;6ˢ
@ #8 ˢ?!ˢ + C<B ;#?C=ˢ#?ˢ > ;ˢ?C#ˢ?!ˢ#B ˢ< 9ˢ Aˢ?!ˢ E=ˢ
W< ˢ =ˢ #B ˢ < ˢ @ #8 ˢ !?C;#>ˢ!>; ˢ8? " ˢ = ˢ = ˢ
B < ; ˢA; #ˢ*B?##ˢ#?ˢ CABˢ ?=#A?< ; ˢ < ;L
@B =#ˢ =ˢ)8 A?Eˢ ?;ˢ B ˢ ?; ;ˢ CK?=ˢ #B ;ˢ ; @ K#ˢ
!?;ˢ #B ˢC ˢ?!ˢ #B ˢ !; AA?# ˢ EB @Bˢ ; ˢ*<K8?> ˢB>ˢ
#B ˢ& # # ˢ = ˢ#B >ˢ?; =ˢ#B #ˢ < ?;ˢ ;# ?#ˢA #ˢ
!?C;#>ˢ< #@Bˢ8?@" ˢ?C#ˢ?!ˢ#B ˢKCD8 @"ˢ ;< ˢEB @Bˢ
; ˢ #ˢ)8 A?Eˢ =ˢK8 @ ˢ?!ˢ#B ˢ ˢ!?C;#>ˢ!>; ˢ8?@"

% &ˢ # =Aˢ ?!ˢ #B ˢ & # # ˢ + ? ˢ A ˢE ;; = ˢ ! ; ;#?
#?ˢ K# =ˢ 2 Hˢ < 8#?C=ˢ = ˢ K# =ˢ J?B=ˢ
;?C= ˢ#?ˢ# " ˢCK?=ˢ#B ;ˢ ; @ K# ˢ =>ˢA; #ˢAC= ˢ
EB ;ˢ #B ˢ < ˢ @ =ˢ D ˢ !?C= ˢ !?;ˢ #B ˢ C! ˢ ?!ˢ #B ˢ
#E?ˢ !; AA?# ˢ EB @Bˢ #B >ˢ ; ˢ KK?>=# ˢ #?ˢ ?<9ˢ <-ˢ
< = ˢ!?;ˢ#B ˢKCD8 @"ˢ! ; @ ˢ 0

%ˢ?; ; =Aˢ = ˢ&<D ;A?ˢ?=ˢ 88ˢ B K

% &ˢ & # # ˢ?!ˢ#B ˢ 1 =A ?< ˢ + ? ˢB ; D>ˢ?; ;ˢ Vˢ
= ˢ&<D ;A?ˢ#?ˢD ˢ8 ˢ?=ˢ 88ˢ B K ˢ = ˢ ;" ˢ
E #B =ˢ#B ˢ 1 =A ?< ˢ# 88ˢ !C;#B ;ˢ ?; ;ˢ = ˢ#B #ˢ
=?ˢ B K ˢ ?;ˢ ;" ˢ !?; ! ˢ D ˢ 88?E ˢ#?ˢ 8
D;? ˢ# 88ˢ#B >ˢ ! ; #ˢ ! = ˢ@ C# ?= ˢ#?ˢ#B ˢ; K @# ˢ
?88 @#?; ˢ#B #ˢ#B >ˢ B 88ˢ=?#ˢ A? ˢ#?ˢ$; =@ ˢ?;ˢ*; L
8 = 4ˢ = ˢ ; = ˢ#B ! ˢK; ! =# ˢ#?ˢD ˢK; =# ˢ = ˢ
KCD8 8B ˢ #ˢ #B ˢ < ;@ #ˢ ;?! ˢ?!ˢ & ⅈˢ = ˢ #?ˢ D ˢ
; @# ˢ #?ˢ #B ˢ ; K @# ˢ ?88 @#?; ˢ ?!ˢ #B ˢ ˢ
K?;# ˢ EB?ˢ ; ˢB ; D>ˢ?; ; ˢ #?ˢ B ˢ =!E ; D8 ˢ!?;ˢ
#B ˢ F @C# ?= ˢ?!ˢ#B ˢK; ! =#ˢ @#

%ˢ?; ; =Aˢ #B ˢ # ˢ?!ˢ? # ˢ B >ˢ Q
#; Eˢ!?;ˢ ˢ* !# ˢ!?;@

% &ˢ # =Aˢ?!ˢ#B ˢ& # # ˢ+? ˢ ; =ˢ B ; !! ˢ (ˢ
?!ˢ B>; ˢ # E ;# ˢ?!ˢ # E ;#; ˢ 0?; ˢ = ˢ 89ˢ
A @ ˢ?!ˢ A 8 # ˢ = ˢ* 8 A #; # ˢ?!ˢ C;AB ˢE #BL
=ˢ #B ˢ 1 =A ?< ˢ #?ˢ # " ˢ @ ; ˢ #B #ˢ EB =ˢ =>ˢ
?!ˢ B ˢ # ˢ!?;@ ˢ?!ˢ B?;! ˢ?;ˢ+; A?C= ˢ B 88ˢ
D ˢNC ;# ; ˢ E #B =ˢ #B ˢD?C= ˢ?!ˢ #B ;ˢ ; K @# ˢ
C; @# ?=@ ˢ%B #ˢ #B >ˢD ˢK;? > ˢ?!ˢ? # ˢ >ˢ
= ˢ #; Eˢ #ˢ #B ˢ ; # ˢ !?88?E =Aˢ Wˢ #B ˢK @"ˢ?!ˢ
? # ˢ?!ˢ 0 =8 #BA?Eˢ< !C; ˢ #ˢ Fˢ B 88 =A ˢ @?# ˢ
>ˢ !?;ˢ = ˢ B? ! ˢ =ˢ #B ˢ = AB#ˢ #ˢ !?C;ˢ B 88 =Aˢ
@?# ˢ = ˢ #; Eˢ !<7 = ˢB?;! ˢ =ˢ #B ˢ = AB#ˢ #ˢ #B; ˢ
B 88 =Aˢ @?# ˢ = ˢ ; = ˢ #B ! ˢ =ˢ #B ˢ @?C=#; >ˢ
#?ˢ 88ˢ #B ;ˢ ? # ˢ B >ˢ = ˢ #; Eˢ #ˢ #B ˢ < ˢ ; # ˢ
#?ˢ #B <

% &ˢ & # # ˢ ?!ˢ #B ˢ 1 =A ?< ˢ # " =Aˢ #?ˢ #B ;ˢ ". .%6,%"7
@?= @; # ?=@ˢ #B ˢ =A ;ˢ ?!ˢ #B ˢ KCD8 @"ˢ K @ 4ˢ ; ;?!#7#?
= ˢ D?Eˢ 8C@@8 ;ˢ #ˢ ˢ !?;ˢ ! @C; # @ˢ #B@;?!ˢ #B #ˢ 2ˢ -#%. -73
ˢ@?<K # =#ˢ !?;@ ˢ = ˢ =C<D ;ˢ ?!ˢ B?;! ˢ !??#ˢ = ˢ ; A??=@

+; A??= ' B?C8 'D ' 8 ' = 'K;? > ' @@?; L
=A' #?' #B ' F A =@ ' ?!' #B ' K; ! =# C=@#C T ' %?L
A #B ;' E #B' = ' ?!! ;' < ' #?' #B <' D ' = ;>'
0?; ' ; ;?! ' #B # #B ' '=?D8 '8?; ' B?C8 '8 '
= '@ C! 'D '8 '!?;' #B ' ; @ ' ?!' #B ' & # # '
' A < =#?!' ; A?C= '@?= # =A'?!' F'#;?CK '
E #B' ! !#>' +; A?C= ' =' @B' #;?CK ' = ' !C;= B'
#B ' ' +; A?C= 'E7B?;! ' = '?#B ;'= @ ! ; '
!C# D8 '#?' #B ' ' ; @ ' /;? > =A' #B ' '
+; A?C= ' B?C8 'D '!C;= B 'D>'#B '& # # 'CKL
?='#B 'KCD8 @"'@B ;A 'E #B' +; A??= ' ;< ' ' =9
= ;8>' = ' #B # #B ' ' =;>' 0?; ' ; ;?! '
B?C8 'D ' 88?E ' = '*<K?E ; 'D>'#B '& # # '
#?' = < '#B ' B ''?! @ ;' #?' D ' *<K8?> ' ='#B '
?<< = '?!'#B ' '; A < =#4 = ' 8"'K ;# @C8 ;'
#;?CK ' ?!' #B ' < =' &F@ K# =A'#B '@?88?= 88' %B '
'=?D8 '8?; 'D =A'<? # E 88 =A'#B # #B 'K ;8D= '
EB?' B 88' @?<< = '#B ' < ' ' ?88?= 88' B?C8 '
D ' = < ' = ' C#B?; W ' !?;' #B # !! @# D>' B '
@' !# ;'B ' @@ K# # ?= '?!'#B '@;?C= '?!'#B '
; 8< ' 'B ' ='B 'E ?< ' B 88'#B ="' ! ##4 %B ;9
!?;' #B ' & # # ' B ' @@ K# ' ?!' #B ' ' ?!! ;'
< '#?'#8 <' ='#B '# ;< ' !?; ' = ' ? ' KL
K;? '?!'#B ' '=?D8 '0?; 'B 'A?? ' = '! #B!C86'
=# =# ?= ' ='#B ' KCD8 @"' ; @ ' = ' +? 'D>'
#B ! 'K; ! =# ' C#B?; W ' B ' A; @ ' #B ' +C" ' ?!'
< 8#?C=' #B ;' K; ! =# #?' !CD!@;> ' K ;# @C8 ;'
@?<< ! ?= '#?' !C@B' K ;!?= ' '#B ' ' =;>'
0?; ' ; ;? ' B 88' = < ' #?' D ' *<K8?> ' ='#B '
; F ' ?<< = ' ?!'#B ' '; A < =# &F@ K# =A'
8E > ' =' < == ;' D? ' F@ K# 4 = '!?;'#B ' =9
@?C; A < =# ?!' D?#B' ?!! @ ;' = ' ?C8 ;' EB?'
B 88' ; ' ='#B ' '; A < =# %B '& # # '+@;'
@8 ;'%B #' !@#;?CK'?!'#B ' '; A < =# !# ;'#B '
! < =' '<C!# ; ' = '!?C= ' #?' @?= !8Z ?!' ! !#>'
+; A??= '@?<K8 #' B 88'D ' =# ; ' = '; @ '
=#?'#B ' KCD8 '"'K >'@?=!?== '#?'#B 'K; ! =# & # ;'
D8 B< =#?!' #B ' 1 =A ?< ' = ' #B #' !?;4D?#B'
?!! @ ;' = ' ?C8 ;'?!' 8"' = '?!'#B ' '#;??K ' ?'
<C!# ; ' = '@?<K8 @# '*#'D =A'= ;#B 8 !'#B '
< = =A'?!'#B '& # # '#B #'#B ' ?88?= 88'B # =9'
= =#' ?88?= 88' = ' ?;' ?!'#B ' '; A < =# B 88'
=?#'B '#B 'K >'?!' ?88?= 88'8 # == =#' ?88?= 88'
= ' ?;' C=# 88' #B ' @?<K8 # =A' = ' <C!85 ; =A'
?!'#B ' B '8; A < =#D?#B'?!! @ ;' = '!?C8 ;'?!'
#85 ' ! ?= ' = '=C<D ;' D? ' FK; !#' C#'K; L
C @ '#?'#B <'?!'#B ;'K >' K# = '?!'#B ;'; L
K @# '#;?CK ' !# ;'#B '@?<K8 # =A' = '<C!# ;9'
=A'?!' 8"'#;?CK' ='< == ;' D? '< =# ?= ' = '
*='; A ; '#B ' '?!! ;'E ' < '#?'#B '& # # '
CK?='#B '=>=# =#B' + >'?!' K;> ' ' = # =#4 %B ;9'
!?;'#B >'+ @8 ; '#B #'#B '@?<< ! ?= 'A; =# 'D '
;#C '?!'#B 'K; ! =# @# B 88'D 'C= ; #?? '#?'D '
?!'#B ' < ' # 'E #B' #B ' ?#B ;' @?<< ! ?= '
A; =# ' =@ '#B ' ' >

%' ='! ?; '?!' 2 ' <' == #>?C=A ;'
?!') ;CDD #!?;' '%;??K '?!' ?;!

% &' & # # '# " =A'#?' ?= ; #?= '#B ' =A ;' G'
?!'#B 'KCD8 @"'K @ ' = 'B?E' = @ ! ;>' #' '!?;'
! @C; # '#B ;?!' %B #' '@?<K # =# =C<D ;'?!'B?;! '
= '!??#' B?C8 'D '8 ' = '; ' @@?; =A'#?'
#B ' F A =@ '?!'#B 'K; ! =# C=@#C; '%?A #B ;'
E #B' = '?!! ;' < '#?'#B <' D '2 88 <' == #
>?C=A ;'?!') ;CD ##4 #B # B ' B 88' 8 ' '#;?CK '
?!'B?;! '!?;'#B ' ; @ '?!'#B '& # # 4 /;? > =A'
#B ' '2!8 <' == # B 88'@?<< = '#B ' '
#;?CK ' ' K# =4 2 #B'/?E ;'#?'B <'#?'= < 'B '
C= ;'?!! @ ;' ='#B '@?<< = '?!'#B ' '#;?CK '
%B ;!?;'#B '& # # 'B ' @@ K# '?!'#B ' '?!! ;'
= '+? ' KK;? '?!'#B ' '2 88 <' == #B '
A?? ' =# =# ?= ' ='#B 'KCD8 @"' ; @ 4 = '?'
D>'#B ! 'K; ! =# ' C#B?; W 'B 'A; @ '#B '+C" '?!'
< 8#?C=' #B ;' K; ! =# #?' !CD!@;> '@?<< !L
?= '#?'#B ' '2 88 <' == # ' K# = ' = '
!C@B'?#B ;'K ;!?= ' 'B ' B 88' = < '#?'D '?!! @ ;'
C= ;'B <' ='#B '@?<< = '?!'#B ' '#;?CK ' = '
!?;'#B ' '?! @ ;' = ' ?C8 ;'#B ;' =@?C; A 9'
< =#?'K;?! @C#'#B ' ' ; @ '%B '& # # '+ 9'
@8 ;'#B #'D?#B'?!! @ ;' = '!?C8 ;' B 88'D ' =# ; '
=#?'#B 'KCD8 @"'K >4 @@?; =A'#?'#B 'K; ! =# & # L
D8 B< =#!;?<'#B '#>< '#B #'#B ' '#;?CK ' B 88'
D ' <C # ; ' = '!?C= ' #?' @?= !8' ?!' ! !# ' B?;! '
@?<K8 #'#B #'D =A'#B '=C<D ;' KK?>=# 'D>'#B '
& # # '!?;' < " =A'CK'#B ' '#;?CK ' @?=!?;<'
#?'#B '?!! ;' < '#?'#B <'#B ;?!' ='< == ;' D? '
< B# ?= #

% &' & # # '?!'#B ' 1 =A ?< '?!' (@?#8 = '@?=L)+66, +'
; =A' %B # 2 88 <' " $$ '%)' ') ;CD ## %+' + 0'
D =A'?= '?!'#B '=C<D ;'?!'#B ') =#8 < ='EB?' 3* / '+'
= '#B '/; =@ '?!' ; =A '=?E' + @8 ; '1 =A' /') < '
?!') ; # ; # =' ='B '&FK # ?= '!;?<' ?88 = ' +,'& ' .'
#?'*=A8 = 'B #B'< ' = '?!! ;'#?'8 'CK?='B ' *++<
?C= '@B ;A ' '#;?CK '?!'B?;! '@?= !# =A'?!'#B '
=C<D ;'?!'! !# ' = '#?'D '*<K8?> ' ='#B ' ; @ '
?!'B ' # @4 = '#B '& # # ' K? =A' K 9'
@ 88'#;C #' = '@?=! =@ ' ='#B '! 8 # '@?C; A '
= 'A?? '@?= C@#' ?!'#B ' '2 88 <' == #'
>?C=A ;'?!') ;CD ##' '=?<= 8' ?=!8 #C#' = '
KK?>=# ' = 'D '#B ;'K; ! =# '+? '=?<= #' ?=L
#C# ' = ' KK?>=#B <'#?'D '@ K# ='?!'#B ' '
#;?CK '#?'D '8 'D>'B <' ' ' 4 @?=! # =A'?!'
#B ' '=C<D ;'?!'!! !#>'B?;! 'E #B'!C88'/?E ;'#?'
#B ' '2!B <' == #>?C=A ;'?!') ;CD ##' %?'
=?=? = #B '8 # == =#' = ' ?;?= #'?!'#B ' '
#;?CK' ?!'B?;! ' = '#?'A; =# @?<< ! ?= '#?'#B <'
@@?; <A8>' = '#?'@?<< = ' = '&F ;@ !' #B '
'#;?CK 'D?#B'?!! @ ;' = '!?C8 ;'@ ; !C88>' = '
88 A =#8>' = '#?'1 K'#B <' ='A?? '?; ;' = '
+ !@ K8 = 4 = ' A = ; 88>' #?' @# = '+? ' 88'
#B =A ' ?<K # =# Q'*=@C<D =# !?;' =>'@ K# =

' ?!' B?; ' #?' ? ' = ' K ;!?;< ' NC ; =A' B ; D>' ' =! ; ?;' ?!! @ ; ' = ' !?C8 ; ' ?!' #B ' ' #;?CK' ' ?D >' B <' ' #B ;' @ K# = ' = ' #B ' & # # ' +? ' B ; D>' ?< < = ' = ' ; NC ; ' #B ' ' 2 88 <' == # > ! ?!') ;CD ## %?' ?D! ; ' = ' K;?! @C# ' C@B' ?; ; ' = ' + ; @# ?= ' ' B ' B 88 ; @ ' !;?<' #B <' !;?<' #>< ' #?' #>< ' ?;' !;?<' ?;') = ; 8' ‖ 1 >' K; ! =# @?< < = ;' =' @B ! ' ?!' #B ' !?;@ ' ?!' #B ' 1 =A ?< ' ?;' =>' ?#B ;' ?<L < = ;' =' @B ! ' !?;' #B ' #>< ' ?;' -$%' CK ; ?;' ?!! @ ;' @@?; =A' #?' #B ' ;C8 ' = ' + ! K8 = ' ?!' E ;;' = ' #B ' & # # ' ? ' @8 ;' #B # #B ' ' #;?CK ' ?!' B?;! ' D?#B' ?!! @ ; ' = ' ?C8 ; ' B 88 ; L @ ' K >' !# ;' #B ' < ' ' < C## ; ' @?<K8 #4 = ' #B # #B ' ?< < 8 ?= ' B ' @?=# =C 4 C=# 8 ' #B ' 1 =A ' # @' B 88 D ' K8 ' #?' A; =# = E' @?< < ! ?= ' !?;' #B ' ' #;?CK ' ?;' ?#B ;E > ' K?! ' #B ;?!' (A= ' >' E ;; = ' = ' =' = < ' ?!' #B '& # # 'D>' #B ' + C" ' ?!' J&8 < 8#? ' ' #B ;' K; L =#

%' =?< = # =A' ?< < ! ?= ; ' #?' #; # ' @?=@ ;= =A' #B ' ' = ?=' ?!' #B ' %E?' 1 =A9' ?<

' % &' & # # ' ?!' #B ' 1 =A ?< ' ?!' (@?#8 = ' + ? ' =?< = # ' ;' KK?>=# #B ' K ; D= ' !?88?E =A' D =A' AB# ?!' ; ' # # 4 W' %B ' & ;8 ' ?!' ;A>8 4 ; E!C; 7' 0?#B =4 == = 8 'Q %E 8 ' %B ' 0?; ' ! 4 ; ;!;! 4 = ' 8 88!?;'#B ' ?D # 4 (‖ J?B=' #8 = 4 <' ?@"DC< ' ?!' ;< 9' #?C=' (‖ / #; @"' ??< ' ?!' /?8E ;# (P ;@BD 8 ' C;; >' ?!' 8 @"D ;;?= ' 2 88 <' 8 ;' ?!'#B # 8"' (‖ J < ' ?=#A?< < ' ?!' (" 8<?; ' %B?< ' +;C< <?= ' ?!' @@ ;#?C=' = '#B '8 ; ' ?!') ; =# !?;' #B ' ;?= ' (‖ J?B=' 88 / ;? # ?!' & =L DC;AB' (‖ B ;8 ' 8" # (‖J?B=' + 8;><K8 4 ‖ J < ' A 8 4 J < '!!8 #@B ;4 ‖ 2 88 <' < 89' #?C=4 ‖ J?B=' C;; >4 = ' J?B=' C ;' @?< < !9' ?= ;' !?;' #B ' #?C= ' ?!' ; ' !?;' #B ' C;;?E 4 E #B' #B ' 0?; ' +C" ' ?!' < 8#?C= '#B ;' K; ! =# ' !CK ;=C< ; ; 4 #?' < # E #B' !C@B' K ; D= ' ' B 88 D ' = < = # ?< < ! ?= ; ' D>' #B ' / ;8 < =# ?!' &=A8 = ' Q #?' #; # ' @?=@ ;= =A' #B ' C= ?=' ?!' #B ' #E?' 1 =A ?<

% &' < # =A' ?C;= ' #?' # =' ' @8?@"' #?9' 7 <?;;?E

& + * ') ' SJ7' K;>' ' G

% &' 0 ## ;' C= ;' E ; ## =' E ' + ; @# !;?<' #B ' & # # ' #?' #B ' 1 =A ' # @

>' #' /8 ' >?C;' # '

% &' #8 =A' ?!' #B ' ?= ;@B ' = ' =# =#) ?L ;=< =# ?!' #B ' 1 =A ?< ' < ## =A' =?' 8 >' 2 ' ' CK?=' #B ' &8 =#B' = # =# /;?@8 <

>?C;' # @' = ' >?C;' ?> 88' @?= %# 1 B A' Q' 3C =' ?!' (@?#8 = 4 E #B' ?' < C@B' C= = < #>4 %B #' ?!' #B ' EB?88' B?C! ' #B ;' E ' ?# ?= ' @?=#; ;>' ?# 4' 2 ' B ' =?< = # ' %B ' & ;8 ' ?!' ; 8 ' (P' J < ' ?=#A?< ; ' I!' (" 8<?;8 ' < ' (‖J?B=' + 8;><K8 ' *=' ?C;' = < ' #?' ## = ' >?C;' # ' E #B' #B ' @B ;!C ' ' ?!! ;' ?!' #B ' @;?C= ' = ' BC < D8>' #?' K; L ! =# #B ' / # # ?= ' ?;' 8 < ' ?!' AB# ?!' #B ' !CD9' @# ' ?!' #B ' 1 =A ?< 4 Q 8!?' #?' ; K; ! =# !?< ' #B =A ' !DC= ' A; @< ' #?' #B ' # ^< 4 EB @B' E ' BC < D8>' =#; # >?C;' # @' #?' < ' D>' EB?88!?< ' 8 E ' =' >?C;' ! ; # / ;8 < =# = ' *=' % # < ?=>' ?!' >?C;' # ' = ' #B ' 3C = ' @9' # =@ ' 2 ' ! @D' >?C;' # ' =' K; ! =@ ' ?!' #B ' < # D>' C ' %?' (E ;' = ' ! A= ' #B ' ? #B9' B ; E #B' K; =! 4 E B ' "L+' 8 E' B #B' KK?>=# ' #?' D ' # " =' D>' ?C;' 1 =A ' = ' 3C = ' !' #B ' =#;>' #?' #B ;' A? ;=< =#4 # ' ' !C@B' #>< ' ' >?C;' A; # ! C;' 88?E' #B ' 1 =A ?< I' #B ' B KK = ' ?!' >?C;' K; ! =@ ' *=' ?; ;' #?' #B ' #E;?= # ?=' ?!' >?C;' 9

2 &' ; ' <? # = D8 ' ?!' >?C;' !8 ' ">= = ' = ' ! #B ;8>' @ ; ' #?' D?#B' >?C;' 1 =A ?< ' *=' K;?99' <? =A' #B ;' C= ?=4 EB @B' E ' B?K ' B #B' D =' ; ! ; ' #?' D ' @@?<K8 B ' D>' >?C4 #B # ' D?#B' 1 =A ?< ' ; ' C= # ' =' ?= ' B ' = ' (? ; A= ‖ ?' #B >' < >' D @?< ' ?= ' ? >' / ?8 # @"4 ?= ' L # ?=' #?' D ' ; K; ! =# ' =' ?= ' / ;8 < =#4 = ' #?9' # # ! ' ?C;' ; = ' #?' @?<K8>' E #B' >?C;' # ' =' #B #' < ## ;' 2 ' B ' =?< = # ' @?< ! ?= ; ' #?' #; #' #B ' # ;< ' ?!' = ' =# ; ' = ' K ;K #C 88' C= ?=' D #E F#' #B ' #E?' 1 =A ?< 4 E #B' ; ; # ?= ' #?' C ' ?!' ?C;' @BC;@B' A? ;=< =#4 ' #' !8 88' B ' # 9' D8 8B ' #' #B ' #>< ' ?!' #B ' C= ?=4 %B ! ' @?< < !' ?= ; ' ? ' E #' >?C;' # ' KK;?D # ?= ' = ' 884 #B #' #B >' < >' < #' = ' #; #' E #B' J ' ?< ' ?= ; ' #?' D ' KK?>=# ' !?;' *=A8 = ' #' EB #' #><' = ' K8 @ ' >?C;' # ' B 88 KK?>=#' = ' !' =>' !! @C8#>' B 88 ;; ! ' =' #B ' %; # 4 2 ' ? ' CK?=' ?C;' K ;#; ! ;' #B ' # ;< = # ?= ' #B ;?!' #?' >?C;' # ' = ' E ' ? ' ! C; ' ?C;! 8 ' !;?<' >?C;' # ' K;C =@ ' Q A?? = ' ?!' ' B KK>' @?=@8C9' ! ?= ' #?' #B #' *< K < # =# ! ;' (?' #B ' < ' < >' D ' A; ' #?' = ' ; # ! ' D>' >?C;' # ' =' >?C;' ! ; #' / ;8 < =#4 2 ' +? '8>" E > ' ; = ;' >?C;' # ' ?C;' <? # C#>!C ' ' #B =" 4 !?;' >?C;') ; L @ ?C ' 0 ## ;' D;?CAB#' #?' C ' D>' #B ' 8?; ' ?! ' X ' K ;9' ' !?= ' E 88' !! @# ' #?' >?C;' ! ; @ ~ = ' !?;' >?C;' K; =@ 8>' @ ; ' =' ! = =A' ?C= ' #B ! ' #;?CK ' EB @B' < >' =' #B ‖ < =' #`?= ' B 8K ' #?' K; ! ; ' C 4 = ' EB =' #B ' !?= ' ?!! ; ' < >' D ' *< K8?> ' #?9' E ; ' #B ' ; @? ;>' ?!' *; 8 = 4 !;?<' #B # K8?;L D8 ' @?= # ?=' = ' F#; <' =A ;4 #?' EB @B' #B ' K;?# # =# ' #B ;' ; ' FK?! ' %B ' AC ; =A' ?C;' @? !# ' E #B' ' A?? ' !8 #4 K; ! ; ' *=A8 = ' ' E 88' ' C ' !;?<' = ' *= ! ?= 4 = ' ' # ' #B ' *=# ; !# ?!' *=A8 = ' #?' @?=#; DC# ' #?' ! @C; ' C ' !;?<' #B ' ! ‖ # *< K; ! ?= ' ?!' #B ' @?< < ?=' =A ;' (?' E ' B '' =?# D ' E =# =A' ?=' ?C;' K 9# #?' A ' ?C;' ! !# =@

' ' '*(= ' '

; ! 4 E #B #B ' ; ! ' !?;' #C;= =A' #B ' # =A' =#?' ' / ;B < =#4 = '#?' ; '?;' '#B ' < ';

2 ' ; '#?' ?!! ;' #B '? #B'#?'#B '1 =A' = '3C =' CK?='#B ;' @@ K# =@ '?!'#B '@;?C= ' = '#?' '#B # #B ' < 'D ' E?;= ' = ' A= 'B>'#B <

$%& ' #B ' 1 =A' = '3C =' B ' # " =' #B ' ? #B4 >?E' ;'#?' ; #<= ' ' ??= ' ' 'K?! D8

2 ' ; '#?' ; '#B ' 1 =A ' # '#?'*=#?9' K? 'E #B' #B ' & # # ' ?!' ?88 = ' #B # #B >'< >' 88?E' # =' #B?E B ' # = ' ?!' < '8 !' ?;' <?; ' E #B' <C= # ?= ' @?=!?;< ' #?' D ' *<K?;# ' !;?<' ?88 = ' =#?' #B '1 =A ?< 4 D>'J < ' +C=8?K ' < ;@B =# =' ?## ; <4 J < ' ?A8 ' < ;@B =# =')8 A?E4 = ') ?;A ' 8 ;"' < ;@B =# =' & <' DC;AB4 !?;'#B 'C '?!'B ' # ' !CD @#' ='#B ' 1 =A ?< 4 = '#?' ; '#B # B ' # ' E 88 ?; ;'#B ' ;< '#?'D '!; '?!'@C #?< ' = '?#B ; ' B ' # ' C ' #'#B ;' ;>> 88' B ; ' =' (@?#8 =

2 ' ; '8>" E > '#?' ; 'B ' A # '#?' A9' = ! 'B 'K8 C; '@?=@ ;= =A'#B ' & ;8 ' ?!' / ;#B' = ' 8@ ;;

% &' < # =A'?!'#B '& # # '@?= =A'#B # ?< ' ?D8 < =' = ') =#8 < ='?!'#B '1 =A ?< 4 B ' C=(% ' < ' = '?!! ;'#?'8 ' ; 88' ; A < =# '?!' !??#' D '3 -7-@ !?;'B ' # '! ; @ ' = '#B #' D>'?; ;'?!'#B ' & # # '#B ;' ; ' ; 88'#;?CK '?!'B?;! ' = '+; ' A?C= ' 8 ?' KK?>=# '#?' D ' ; ' = '8 '#?' #B ' = ' !?; ' = '4 # D =A' = @ ! ;>' = '; 9' NC ! # '%B #' ?< ' NC 8 ! ' K ;!?= ' D ' =?< = # C # ;' < # ;') = ; 8'#?' '#B ' ' A < =# ' ?!' !??#'%;??K '?!'B?;! ' = '+; A?C= '<C # ; ' = '#B ' '& # # 'D =A' @?=! =# ?!'#B '! 9' 8 # '"=?E8 A ' = 'NC 8 ! @ # ?= '?!' ?;' CAB' C=# =' !?;' F ;@ =A' #B # #;C # '=?< = # ' ?= # #C# ' = '?; = ' = 'D '#B ;'K; ! =# ⅈ+? ' ⅈ=?< = # @?= # #C# = '?; ='B <' #?' D ' C # ;' < # ;') = ; 8'?!'#B '!?;@ ' C '#?' D ' ; ' 8 ' E '' ?!'B?;! 4 !??##4 '?!' +; A?C= ' E #B' !C88' /?E ;'#?'B <'#?' CD # #C# ' = ' KK?>=# + KC# ' Q' !CD!# # # ' = '?;' < '!?;' EB?<' B ' '#?' D ' =!E ; D8 ' = '#?' C#B?; W ' = '*<K?E ;'#B <' !?;'#B #' !! @#' = 'D>'B < 8! '?;'4B ' '+ L KC# 4 %?' <C # ;'#B ' ' A < =# '?!'!??## = ' #;?CK '?!'B?;! 'Q +; A?C= 4 = 'A = ; 88>'#?' @# = ' ? ' 88'#B =A '@?<K # =# = '*=@C<D =# !?;' =>' <C # ;' < # ;'#?' ? ' = 'K ;!?;< ' = '#B ' & # # '+ @8 ; '#B #'#B '@?<< ! ?= ' B 88' @?=9' # =?E4 C=# 88' B ' # ' B 88' D 'K8 '# 'A; =# = ' = E' @?<< ! ?= '#?' B <4 !?;' D =A' <C # ;' < # ;' A = ; 88' ?;' ?#B ;E > ' K? '#B ; = =# = '#B #' B ' B 88' =# ;' =#?'#B 'K >'#B #'#B ' !?;< ;' C # ;' < # ;' A = ; 88' B '!;?<'#B ' #ⅈ B ; ?!' (A= ' >' E ;; = ' = ' =' = < ' ?!'#B ' & # # 'D>'#B '+C" '?!' < 8#?C='#B ;'/; =#

H2++275'6"+' :+-4-:3,' 7' 62Q"+,' "6' ' +#0!-' S-!. "+!%-' D' %+' "17' 2!+0. :!-

% &' # =A'?!'#B '& # # ' ? ' C#B?; W ' = ' *<K?E ;'#B ' C" ' ?!' < 8#?C='#B ;' K; =#' #?' ; E' K; @ K#' CK?='#B ' A = ; 88' @ ; ' ?!' #B ';' = E' = 'KCDB@"' C '!?;' K >< =#'#?'#B ' & ;8 '?!' ;A>8 '?!'#B; 'BC= ; 'K?C= ' # ;8 = 4' (ⅈJ < ' ?=#A?< ; '?!' (" 8<?;8 '?!'#E?' BC=L ; 'K?C= ' # ;8 = 4' = '#?' (ⅈJ?B=' + 8;><K8 '?!'#E?' BC= ; 'K?C= ' # ;8 = 4' !?;' !; > =A'#B ' FK =! '?!'#B ;' ?C;= >'#?' 0?= ?='#?' ## = 'B 'ⅈ # 'E #B'#B '?8! ;'?!'#B ' ;?C= 4' = '8>" L E > '#?' ; E' K; @ K#'CK?='#B ' ';@ ; !?;' K >< =#?!'#B '!?;@ ' KK?>=# '#?' D ' ; ' @?=!?;<'#?'#B ' @#'< '#B ; = =#D>'#B '& # # ' = '!?;' K >< =# ?!' C@B' ?#B ;' ?C< ' '*B ''D ' = @ ! ; ' !?;' !CKK?;# ?!'#B ')? ;=< =# !;?<' #>< '#?'#><

% &' & # # ' ?!'#B '1 =A ?< '?!' (@?#8 = ' ; 9' K? =A' K @ 86'#;C # = '@?=! =@ ' ='#B 'B# '4 0 @?C; A ' = 'A?? '@?= C@# ?!' (ⅈ 2 ' <' ?K ' ?!' 1 ;"8 !#?C= ' '=?< = # ' ?= # #C# = 'K9'

% &' & # # ' ?!'#B '1 =A ?< ' ; ='#B '1 K ; ' !2 =9< ' ?!'#B ' /CDB@"' ;< ' # ;'#?' + 8> ;'#?'#B ' 0?; ' ;A = '?;'B '?; ;' ' ?D = ; '<C " # ' #B' "+5' E #B' = 8 ; ' = '< #@B' @?=!?;< ' = ' = 'BC=9' ; ' = ' F# 'K @" 'CK?='B ' ; @ K#!?;'#B 'C! ' ?!'#B ' A < =#'#?'D '8 'D>'#B ' '0?; '!?;' #B ' ; @ '?!'#B ' /CDB@"

; ;'@?=9' E<=A'#B ' ?!& '

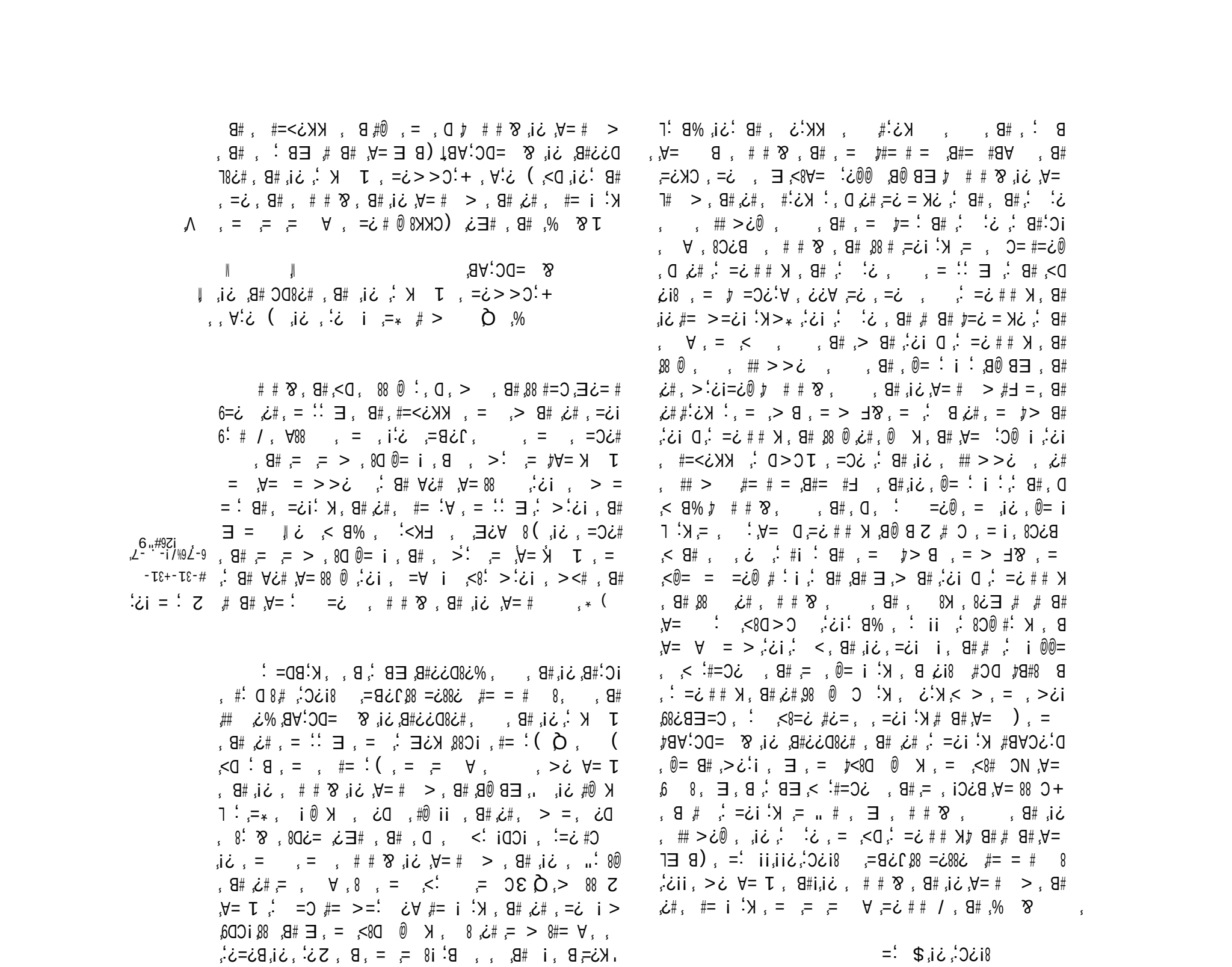
% &' & # # ' ?!'#B '1 =A ?< '@?= ; =A'#B #' *=B D # =# '?!'#B '#?C= '?!' & =DC;AB' B D =' #' @?= ; D8 '@B ;A ' =' =A A =A' = ' B>; =A' K ;!?= '#?'! ; '#B <' ='#B ' < 8 # '!?;' @ ;# ='#>< '> #'=?# FK>; 4 %B ;!?;'#B '& # # ' +? 'B ; D>' @B ;A ' 88' !C@B' < 8 # '!?C8 ; '#?' # " ' ?='?;' =A A 'E #B' =>'?#B ;'?!! @ ; ' +C; 9' =A'#B '#>< '#B #'#B >' ; ' =A A '#?'! ; '#B ' ' =B D # =# '?!' & =DC;AB4 ' 8!?'#B >' L @B ;A ' =>'?!! @ ; 'F?' # " ' K='#B ' !?;! ' < 8 # ' < =4 = 'D =A' ; NC ; 'D>'#B ' ' *=B D # =# ' ; = '#B ' ' ?!! @ ; '#?' ; #C;= '#B ' ' ?C8 ; ' CK?='#B ' K >< =# ?!' EB #' <?= >'#B ' '?!! @ ; 4B 'K > '#?'#B ' '(? ;

% &' # =A' ?!'#B ' & # # ' B =A' @?= ; ' 3 ;; = ' = '?!! ;' < 'D>'#B '0 ; '?!'); =#'#?' *<K?;# F' '); =# BC= ; ' # = ' ?!' ;< ' !?;' #B ' KCDB@"' ; @ ' 3"' %. :"+3' K;? > =A' #B ' K;>@ '#B ;?!' D ' ; K > '#?' B <' %B >'A 'E ;; = '#?'#B '8 ; '?!'); =#'#?' DC>' = '*<K?;# F' BC= ; ' # = ' ?!' ;< ' !?;'#B ' KCDB@"' ; @ ' = '+ @8 ; '#B #'#B 'K;>@ '#B ;?!' B 88' D ' ; K > '4#?' B <' D>' #B ' KCDB@"' E #B' #B ;' @?= = =@ ' B ' < " =A' #B ' ;< ' !C;#B9' @?< =A

% &' & # # ' ?!' #B ' 1 =A ?< ' ?!' (@?#8 = ' ; 9' "7 . %6,%"7'

6 %" . %6@ ,%42%,'3"=,31-' %Q-3-77273 D' "+7-30

*? , , ,



< A #; # ' ?!' & =DC;AB4' #?' <? ' #B ' / # L
?= ' !;?<' B ' ?!8(@ ' ?!' 1 K ;' ?!' #B ' %?8D??#B4'
' #?!' ED @D' #B ' K # # ?= ;' BC<D8>' K; ! =# 4'
%B #' #B ' ' @#' E 'K #' E #B?C#' B ; =A' EB ; '
!' B 'B 'D =' B ; 4' 'E?8 'B ' ' A 4' 'B '
=?E' 88 A '%B #' D ' @?C8 '=?#' D ' !C<< ;8>' L
<? ' !;?<' B ' ?!! @ ' @ C 'B 'B ' 'A !#' !;?<'
#B '#?C= '?!'#B '! < =' ' # <' C#' @C8K <4' EB @B'
#B '#?C= ' ' ?D8 A '#?' E ;; = 4' = ' =A' #B '
& # # 'B '<? #' C #8>' < ' #' = '?!' #B ' ;# @8 '
?!' #B ' K # # ?=' ?!' ; AB#4' #B #'=?' < =' #B #' B ' = '
?!! @ ' ' # <' C#' @C8K <' @ =' D ' ; <? '!;?<'
#B ' < =' E #B?C#' '! C8#4' = ' =A' #B ;' '=?'
! C8#' 88 A ' A = #' #B ' K # # ?= ;' =?;' !?' <C@B'
' #B ' 8 #' < < =?C;' ?;' < 8 ;! # ?= ' =' B '
?!! @ 5' = ' B ' B =A' !?C= ' !C!! @ =#' @ C# ?= 4'
= ' !' = ' E ; ' ' '> #' @?=# =#' #?' ! = '! ; ;'
C# ?= ' D >?= ' 88' &F@ K# ?= ' !?;' ! 8 # ' = '
F @C# ?= ' ?!' B ' ?!! @ ' = ' %B ;!?;' C<!! >'
; =A' #B #' #B ' '& # # 'E?8 'D 'K8 '#?'
; !@ = '#B ' !?;! ' @#' = ' 88?E' #B ' / # # ?= ;' #?'
@?=# =C 9' =' B ' ?!! @ ' @?=!?;< ' #?' B ' A !#4' = '
8 E '?!'#B ' 1 =A ?<4' = '#B '?#B ;' ?!'#B ' '
K # # ?= ' D =A' A =' =' D>' ;#BC;' = >' 8 # '
1 K ;' ?!' #B ' '%?8D??#B' C<D8>' K; =#L
=A' %B #' #B ' K # # ?= ;' B =A' ?D# = ' = ' A !#'
!;?<' #B 'A?? '#?C= '?!'& =DC;AB4' #?' D '@?= C=@#'
1 K ;' ?!' #B ' #?8D??#B' ?!' & =DC;AB' E #B' \
J?B=' = 4' = ' #?' D ' ?8 ' 1 K ;' ?!' #B ' '

!C<< ;8>' #C;= ' ?C#' ?!' B ' '?!! @ ' = '#?' L
K?;#' ' #B ' '#E?' !CKK8 @ # ?= 'B ; ' 2 B @B'
D =A' ; ' =' C =@ \' ?!' #B ' '& # # '%B >'
=?< = # ' = ' KK?>=# ' = ' ?< ## ' ?!' #B ;'
?C= ' =C<D ;' %?' @?= ;' #B ' A;?C= ' ?!' D?#B'
/ # # ?= ' = '#?' ; K?;#' = '#B ' ' ?<< ## '
B =A'B ; ' = ' #8 =#B' ?= ; '#B '!?;! '
#E?'K # # ?= 'E #B'#B ' =!C ; 'A =' =' D>'#B ' '
) ?;A ' +;C<<?= ' #?' #B ' (CKKD@ # ?=') =' ='
D>' ;#BC;9 = >4' #B' = '?#B ;'K # # ?= 'A ='
=' D>'#B ' ' ;#BC;' #?' #B ' ' ?<< ## '%?L
A #B ;' E #B' = '?#B ;' !CKK8 @ # ?=' A =' =' #?'
#B <'D>' P'J?B=' = ' 8!?' 8 # ' 1 K ;'?!'#B ' '
%?8D??#B' ?!' & =DC;AB4' C<D8>' K; =# =A'
#B ' *=@;? # B< =# ' < ' ?=' B ' ?!! @ ' D>' #B '
& ;8 ' ?!' D ; =' #B =' 8?; ' B =@ 88?;' =' ?>= 9'
=A' ;#BC;' = >' 'B ' @?= C=@#4' = ' 8!?' 88 L
=A' #B ' @ K ' ?!' #B 'K; !?= ;' !?;' EB @B' B 'E '
#C;= ' ?C#' ?!' B ' ?!! @ ' = ' CKK8 @ # =A' #?' B ' ; L
@?<< = '#?' #B ' < A #; # ' ?!'& =DC;AB4' 9'
< ## =A' = ;#B 8 ' #B ' !C88 ;' ! @C! =A' #B '
K?>=#' ?!' ; AB#' B =@' = '#?' #B ' C A '?; = ;4' '
8!?' B =A' @?= ; '#B '! ; 88' A !# 'A; =# '
D>'#B ' #?C= '?!'& =DC;AB' #?' #B <' ' 8!?' ! ='
= ' ?= ; '#B ' + @; # ?!' /; ' ?C=@ 88'
#C;= =A' ?C#' P'J?B=' = ' = ' ;#BC;' = >'
E #B' #B ' # =?;' ?!' #B ' = 'A; =# ' D ' #B ' '
;#BC;' = 'B ' C# ?= ; ' EB ;D>'B ' '8> D8 '!?;'
B <! 8! ' = '#B ' ; =#' ?!' #B ' %?8D??#B4' = '

B =A' @ 88 ' 88' #B 'K ;# ' = '#B ;'K;?; 4' = '
!C88>' B ; ' #B <' CK?=' #B ' B 88' < ## ;' ' = '
) ?;A ' +;C<<?= ' =?E' 1 K ;' ?!' #B ' '%?89'
B??#B4' B =A' ?<K ; ' D !?;' #B ' ' ?<L
< ## 4' = '!CD< ## 'B <! 8! '#?' #B ' # ;< = L
?=' ?!' #B 'K; ! =#' < A #; # '?!'& =DC;AB' = '
#B ' ' ?< ## 'B =A' #B ' >' < ' K?;#'
?!' #B 'B 88' < ## ;'%B ' '&!# # 'B '!?C= '
= 'B ; D>' = 4' %B #' #B ' 'J \' J?B=' = '
= ' ;#BC;' = >'E ; '8 A 88>'#C;= '?C#'?!'#B ;'
?!! @ ' ' 1 K ;' ?!' K ' '%?8D??#B' ?!' & =L
DC;AB' D>' #B ' @; #' = ' =# =@ ' ?!' #B ' / ; '
? <@ 88' = 'B ' < ## ' = ' ; D>' < ## '
#B ' ') ?;A ' +;C<<?= ' B '@ ! '#?' #B ' ?= 9'
; # ?= '?!'#B 'K; ! =#' < A #; # '?!'& =DC;AB

% &' < # =A' ?C;= '#?' # =' '@8?@"' #?L
<?;;?E

&+* ') ' \f K;>88' G

*%' '?; ; '#B #' 88' #B ' (??#' =?B 8 # ' = 'K ;9'
!?= '?!'NC 8 # ' B?' ; ' #' K; ! =#' #' 0?= ?=' ?;'
D?C#' #B ' @?C;#' K @ 88>' #B ' < <D ; ' ?!' #B '
=A' ?!' #B ' & # # ' B ' ;# ! ' #?' ## = '
B ' * * # 4' EB =' #B ' ?<<! ?= ; ' !?;' #B '
1 =A ?< ' B 88' E\ #?=' B <' E #B'#8 ' ?!! ;' ?!'#B '
;?C=

[R 1-' 4"3,'
?D 8 # ' =
0?= ?=' #?'
= 'B '
'
E #B' #B '
?!! ;' ?!'#B '
+"97

6 +5-+'
27-73]82+₩
3-+₩7#"6+4-,
9%31₩7 31-'
:+-6/03-+₩-'
"6 87/2+00

% &' & # # '?i'#B '1 =A ?< '+? 'B ; D>'A '
?; ;' = 'E ;; = '#? (P J?B=' (=@8 ;' ?i' O?@B ;9'
< AC '%B '8 ; '?i' (K?# = ' ₩ ?D ;'# O E ;'
#?' @?=@C;';E #B'#B '< A #; #'?i'+C=D ;'i?;'# " 9'
=A' @ ; '#?' NC ;'# ;'iC@B'?i' B ' # 'i?;@ '
B?;i '?;'+; A??= 'EB@B'i# ₩B KK =#?'D 'E #BL
=' #B 'K; 8D># ; '?i' +C<D ;'₩ = '#?'K;?' > '
#B <'E #B'? # ' >' = '#; E'@?=i?;'< '#?'#B '
@# ?i'#B'& # # '?i'#B ' # '#B'#E =#>'#B ; '
= # =#' < '#B ; = =#

G & %' #B '; K; =# # ?= '< '#?'#B '< #=A'
?i'#B '& # # '?i'#B '1 =A ?< 'i;?<'#B ' ?88 @#?;'
?i'#B '@C #?< ' = ' F@>i ' # O #B'%B #'=?#E #BL
= =A' ?i'#B '?; ;'?i'#B '& # # 'i?;'#B '< ;L
@B =#' ='#B '#?== 'i?;'K > =A' ='#B 'i?C;'#B'K ;'#
?i'#B '@Ci#?< '?i'#B ' 'E>= 'EB @B'#B >' B?C8'
B 'K > ' # #B ' =#; '?i'#B ' 'E>= ' '
8i?'i?;'#B ;' =# ; =A' = 'K > =A'#B ' C #>'?i' =

%' =' i ?;'?i'#B ' ?88 @#?;'?i'#B '
Ci#?< ' = 'aF@>i ' # O #B

% &' & # # '?i'#B '1 =A ?< '+? 'B ; D>'A '
DC;AB '?i' ₩ #B ' B>; ' = 'K?#=' ;'?i'#B 'EB?'' ?> '
DC;AB '?i'#B '*i =A ?< ' = 'KK?>=# 'K; =# '
@?K 'B #B ;?i'#? D ' K @# 'B ' #?' #B ' i8 ; ii '
@8 ;'' 'i#B '; K @# ' B>; ' #B # #B >'< ' ='
#B ' < '#?'#B '< A #; #'?i'#B ' 'DC;AB '#?'
D 'KCD8 i8 ' = '#?'#B 'i ; ₩ < =i# ;' ='#B '
B>;'#B #'#B >'< ' =# < # '#B 'i < ' '('

% &' & # # '?i'#B '1 =A ?< '+? 'B ; D>'A '
?; ;' = 'E ;; = '#? (P J?B=' (=@8 ;'?i' O?@B ;9'
< AC '%B '8 ; '?i' (K?# = ' ₩ ?D ;'# O E ;'
#?' @?=@C;';E #B'#B '< A #; #'?i'+C=D ;'i?;'# " 9'
=A' @ ; '#?' NC ;'# ;'iC@B'?i' B ' # 'i?;@ '
B?;i '?;'+; A??= 'EB@B'i# ₩B KK =#?'D 'E #BL
=' #B 'K; 8D># ; '?i' +C<D ;'₩ = '#?'K;?' > '
#B <'E #B'? # ' >' = '#; E'@?=i?;'< '#?'#B '
@# ?i'#B'& # # '?i'#B ' # '#B'#E =#>'#B ; '
= # =#' < '#B ; = =#

% &' & # # '?i'#B '1 =A ?< '+? 'B ; D>'A '
?; ;' = 'E ;; = '#? (P J?B=' (=@8 ;'

$?;#B B>; ?! =A#?C=
%B & ;8 ?! 2 =#?C= #B & ;8 ?! %E 8
#B 0?; 8B =(J?B= 8?! +C=A8 ! (
/ #; @" KDF ;= ?! 8 @"@ #8 (J?B= (=@8 ;
?! 0?@B = ; @B D 8 C;; > ?! (K?# ?D ;#
< 8#?C= ?! /; ! < = = ?D ;# 0 E ;?!
<?C#B J < < 8#?C= ?! #B ;E @"
2 88 < KDC;= ?! =!#?C= / #; @" K
DC;= ?! (< #?C= (2 88 < ; ?! ED>#B
( ) ?;A (C## ?! 8A?= 2 88 < !D # ?!
+ ;8 #?C=) ?;A ?; D= ?! /; #?=A; =A
?D ;# DC;= ?! ;!?; (J < > ?!
0 =K8C< = ; E! 8 # B ;?!(8#?C= + K
DC< ?! C<D 7 (J?B= 0 E ;?! $?C=# =
B 88 (/ #; @" ;?C= ?! ?8 #?C= (?D ;# (=L
@8 ;?! (# = #?C= %B 8 ; ?! ;< #?C=
%B 8 ; ?! 0 < =A#?== J < !E ?!$ =
A8 #?C= J<= +C;B < 0C! B

$?;#B B>; ?! ;E @"
%B ;NC ?!+?CA8 #B 8?; ?! #B 8?;
;@ ! #B 8?; ;! =A#?C= J?B=(=@8 ;?!
0?=A!?;< @C (J?B= C< ?! 8 @" ;(J
J < +?=?! E#?C=(J < ?@"DC< ?!
#B # 8" (?D ;# (# E ;# ?! ' =D =" (J?B=
?! +C=A8 (2 88 <(@?# ?! ; =(J
J < ?@B ?! *== ;8 #B (/ #; @" C< ?!
, < =( ) ?;A C< ?! 2 ;DC;= (J?B=
(C =#?= ?! #B # 8"(J?B= =#?C= ?! 0 <D ;
#?C= J?B= 1 ;?! ?; !#?C=(J?B= 1 ;?!
) ?;A <! >?!* ' A#?C= & A ;?!
2 ;8 (8 F = ; ;?C= ?! %B?< >" J?B= C< ?! >C E 88) ;A C< ?! 1 <
< ;AB < (J?B= B ?! %?!# (?D ;#
;?C= ?! 8 @"DC;= C< ?! C= E?? 4
/ #; @" 2 ; 8 E?! ;; B CAB(2 8# ;/ ; =A8
?!) ; ="=?E( ) ?;A (! = =(2 8L
8 < ?@"DC< ?! 8 ; M / (((
0 ?= ; (J < -?! ?8 =A"=DE +
C< ?! ;?! ; AA(J < +?EA8 ?!
& ;= 8 2(8 F = ; C< ?! DD >(J?B= 2 #
!?= + J ; =! 8 (8 F = ; %;?## ;?! 1 #8
B 88(%B?< ?@B ?! 2 B #!?< B 88 (;@B
D 8 ?@"DC< ?! 0 =A#?C= = (/ #; @"
C< ?! /?8E ;#

$?;#B B>; ?! ?FDC;AB
%B ;NC ?!+?CA8 #B & ;8 ?! 0?#B =(
#B 8?; ED?#8 (#B 8?; J DC;AB(#B 8?;
C#B ;!??; (2 88 <(1 ;?!); =B (
2 88 <(@?## ?! ; =(2 88 <(&88 ?# ?!
(#?D ($; =@ (@?#(J?B= (@?# ?! =@;C<(
(?D ;# / ; =A8 ?! (# #@B 88(#B 8 ; ?! 8 !
#?C=(B ##?(= $;?A B((2 88 <(= ' # ?!
);CD #(/ #; @" (@?# (J?B= 88 ?! #B #
8" (J < +?=?! E#?C= / ; =A8
>?C=A ;?! (# #@B 88(J < +?=?! (< 8B?8<(
%B 8 ; ?! C#B ;!??; (/ #; @" +?=?! ## ;
DC;= (2 88 <(+?CA8 ?! ; (?D ;# (@?#
?! ?;!8 B 88 #B +C#@B ?! C@@8 CAB @B =9

(

<B

$?;'#B ' B>; '?i'O = ;'"

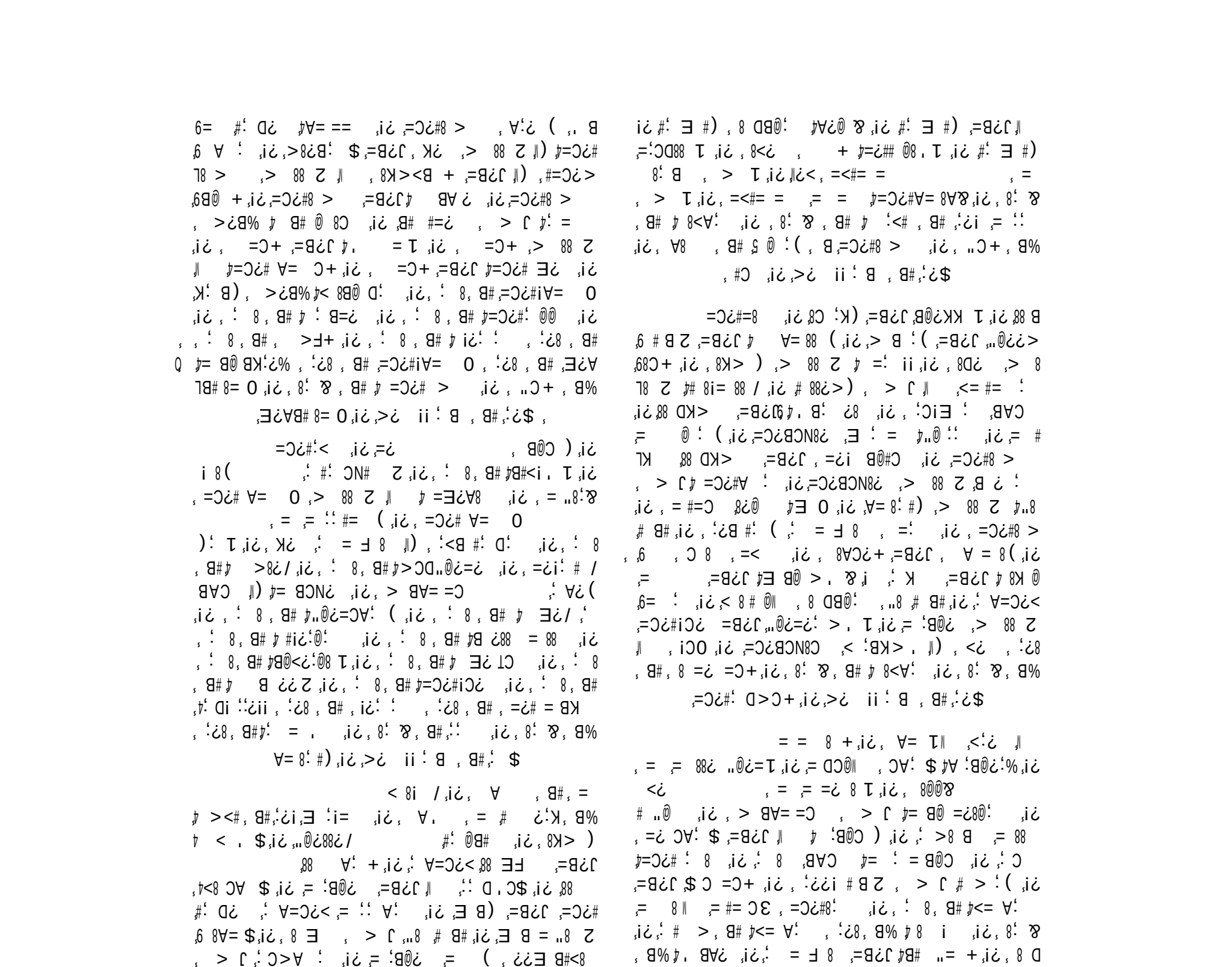
%B ' +C" '?i' < 8#?C=∢ #B ' ;NC '?i'+?CL A8 ∢ J?B='8?; ' ;< @B ▒▒∢ 8 F = ;'8?; ' 8 =9 ¼#>; ∢ ;@BD 8 ' &. ;8 ' ?i' ii?;i ;∢ (ⅈ + = 8 ;L < @B 8' ?i' C8 i8 ∢ J?B=' 2 ;' ?i' 1 E#?C=' 2 88 <' ' ?i' =A?C= ' 8 F = ;' =A ' 8 ;' >?ⅈ ?i' C8# ; E ∢ 8 F = ;' ;#; <7?i' D #∢ J < 'O?@"B ;'# ?i' == #?C=' J < ' (?< ; ▒▒ ?i')8 8?= ' J?B=' ▒▒A ' >?C=A ;' ?i' 2 8i#?C=∢ 2 88 <' + =B?8< ' ?i' 2 # B ▒▒∢ (ⅈ 2 88 <' O?@"B ;'# ?i' ;!i# ;' ⅈ = ; E' 1 == ' ?i' 8?EDC;=∢ (ⅈ J?B=' ;L < @B 8 ?i' ?=>=#?C= ' 2 88 <' 8A 'Oi'?i 8 #0 9' A B4ⅈJ < ' O?@"B ;'# ?i' 8 AB?;= ∢) ?'ʔ 8A ' ?i'J ;; E?? '#B ' 8 ; ' ?i' 0 ∢ J?B=' < 8#?C=' >?ⅈ ▒▒@; A∢ 2 8# ;' O?@"B ;'# ?i' 1 ;"#?C= ∢ (<C 8 +?EA8 ' ?i' i > ∢ ?D ;'# 1 == ' ?i' C@B# i ; 8 ' = ' ?i' ;' A<C ;'4 2 88 <' O EF ' ?i' 8 @"E?? ∢ = ; E' >' ?i

$?;'#B ' B>; '?i'O = ;'"

%B ' +C" '?i' < 8#?C=∢ #B ' ;NC '?i'+?CL A8 ∢ J?B='8?; ' ;< @B ▒▒∢ 8 F = ;'8?; ' 8 =9 ¼#>; ∢ ;@BD 8 ' &. ;8 ' ?i' ii?;i ;∢ (ⅈ + = 8 ;L < @B 8' ?i' C8 i8 ∢ J?B=' 2 ;' ?i' 1 E#?C=' 2 88 <' ' ?i' =A?C= ' 8 F = ;' =A ' 8 ;' >?ⅈ ?i' C8# ; E ∢ 8 F = ;' ;#; <7?i' D #∢ J < 'O?@"B ;'# ?i' == #?C=' J < ' (?< ; ▒▒ ?i')8 8?= ' J?B=' ▒▒A ' >?C=A ;' ?i' 2 8i#?C=∢ 2 88 <' + =B?8< ' ?i' 2 # B ▒▒∢ (ⅈ 2 88 <' O?@"B ;'# ?i' ;!i# ;' ⅈ = ; E' 1 == ' ?i' 8?EDC;=∢ (ⅈ J?B=' ;L < @B 8' ?i' ?=>=#?C= ' 2 88 <' 8A 'Oi'?i 8 #0 9' A B4ⅈJ < ' O?@"B ;'# ?i' 8 AB?;= ∢) ?'ʔ 8A ' ?i'J ;; E?? '#B ' 8 ; ' ?i' 0 ∢ J?B=' < 8#?C=' >?ⅈ ▒▒@; A∢ 2 8# ;' O?@"B ;'# ?i' 1 ;"#?C= ∢ (<C 8 +?EA8 ' ?i' i > ∢ ?D ;'# 1 == ' ?i' C@B# i ; 8 ' = ' ?i' ;' A<C ;'4 2 88 <' O EF ' ?i' 8 @"E?? ∢ = ; E' >' ?i

$?;'#B ' B>; '?i' / D8

%B ' +C" '?i' 3C = D ;; ∢ %B ' &. ;8 ' ?i' ?;9' #?C=' 0?; ' 2 88 <' +?CA8 ∢8 # == =#) = ; 8' +?EA8 ∢ %B ' 8 ; ' ?i' +;C<< 8W % #B ' 8 ; ' Nⅈ 8 @"D ;?=>' 8 ;∢ #B ' 8 ; ' ?i' (# =B?K ' 8 ;' ?i' = ' >?C=A ;∢ #B ' 8 ; ' ?i' E + @"ⅈ #B ' 8 ; ' ?i' + ?;= @"∢ #B ' 8 ; ' ?i' ?i' ; A ;?@B∢ #B ' 8 ; ' ?i' +?;C=' >?C=A ;' ?i' K =?@B∢#B ' 8 ; ' ?i') ;= ' ?@B 8 ;' (ⅈJ < ' J?B=' #?C=' ?i' 2 # ; E' #B ' 8 ; ' ?i' 0 < ;' @ 88 ∢ ; A= #B =∢ 2 88 <' C< #?C=' ?i' K8? B∢ J < ' ?C=A' ?i' 2 # ; E∢ #B ' 8 ; ' ?i' ; A ∢ #B ' 8 ; ' ?i' (#?C=' J?B=' J?B= #?C=' ?i' ?;B ' J?B=' J?B= #?C=' ?i' ?;B ' J?B=' J?B= #?C=' ?i' ?;B



$ ' ' '*(=

!8= #B ;' ?!' 2 ; ' ?; D =" ' ?!' 8D ; %B?< ' 88A ' ?!' / ?8" == #

$?;' #B ' B !! ?<' ?!' / ;#B

J?B=' B8 ;NC ' ?!' #B? ' ' + ' !@?C=# ?!' (#?;9 <?C=#4 = ; E' 8?; ' ?88?4 + '8?; ' C#B =4 (' ?8 =' <KD 88 ?!' D ;C;@B 84 J < ') ; B <' ?!' ;@B 884 J?B=' =?!')8 = A 4 (' ?D ;# C;; >' ?!' D ;@ < 4 (' / #; @"' C;; >' ?!' C@B ;#>; 4 <' +;C<<?= ' ?!' A =@B4 8 FL = ;' (K # 88 ?!' 0 E@B #4 %B?< ' >' ?!' 889 B?C ' (' J?B=' (# E ;# ?!') <#C ' 4 C=A? <KD 88 ?!' C;=D ="' (' %B?< ' ?= ; !! ' ?!' #B # 8"4 #B ' 8 ; ' ?!' 2 <' >?C=A ;' ' / #; @"' 1 ;' ?!' 1 ' 8<?C=# ?8 = ' <KD 88 ?!' ?=A ' J < ' / ;!?= ' ?!' 1 KK =;?! 4 / #; @"' >' ?!' 1 ;"8 = ' ?= ; !! ' ?!' % KK ;< 88?@B4 ' J?B=' 8 ;' ?!' 88<>88 ;@BD 8 ' K ;' ?!' ?9 NCB K8 ' ' $; =@ ' ?=#A?< ; ' ?!' *=@B8 88 4 + ' +;C<<?= ' ?!' C8#< 8C= 4 J < ' (# EL ;# >?C=A ;' ?!' ; ?;8 @" 4 J?B=' <KD 88 ?!' 8 #B @"4 J?B=' +;C<<?= ' ?!' ;4 8 F = ;' +C=@ =' ?!' OC= ' <KD 88 ?!' A ; B?4 ' ?D ;# = ;!?= ' ?!' ?8 ! ') 8 KB =# ?!') 8 !# D = ' >' ?!' O > ' 8 ;' J < 8 ' ?!' 8C=>4 2 88 <' (# E ;# ?!' 88 ' %B?< ' (# E<;# ?!' (# =#?C=4 / #; @"' (# E ;# ?!' ' @B =4 (' J < ' <KD 88' ?!' O E ; ' (' J?B=' C;; >' ?!' +;C<@ <49 ?8 =' <KD 88 ?!' C=A ' %B?< ' (# E ;# ?!' O >E 4 + ' >DC;9 #?C=' ?!' / #@C;;4 J?B=') ; >' ?!' ; @B ' 88>D C#?=' ?!' $?#B ; =@ 4 J < ' 8 ;' ?!' ; 9 D8 ;4 J?B=' #@B 8 ?!' >; 4 J < ') ; B <' ?!') ; ?@B' / #; @"' (< #B' ?!' #B =4 2 8# ;' (# EL ;# ?!' 1 =@ C@B 4 J?B=' C;; >' ?!' / #@C ' =4 ' J < ' &8KB =A #?C=' ?!' ?<; 4 J?B=' C@B = =' ?!' <K;> ;4 8 F = ;' (# E ;# ' == #44 ' + ') ; B <' #C#?;' ?!')8?;#B 4 J?B=' C;; >' ?!' (#; =4 2 88 <' / #?=' ?!' / ==B?8 4 J?B=' 2 89 8 <!?= ' ?!' <B ' 4 J?B=' C;; >' ?!' ;#BC;! ' #?C=4 ' / #; @"' C;; >' ?!' +?' ?; 4 B ;8 ' (# E ;# ?!' ?#< 84 #B ' 8 ; ' ?!' (#;?E =' ?D ;#9 !?= ' (' 2 88 <' (# ;8 =A' ?!' ; ?@B4 J?B=' (# E ;# ?!' $! ' ' ' 1 =8?@B' ?!') ?C; C;; >' ?!' 1 88?;' +?= 8 ' ?D ;#!?=' ?!' 1 88 @B9 =A 4 J < ' (# E ;# >?C=A ;' ?!' ; ;#4 =;>' C;; >' ?!' O?@B8 =

$?;' #B ' B ; !! ?<' ?!' 1 =@ ; =

%B ' & ;8 ' ?!' ; B 884 #B ' & ;8 ' ?!' (?C#B "' #B ' @?C=# ?!' ;DC#B= # (' B ;8 ' <! >' ?!' 8L < =4 (' 8 F = ;' $ 8@?= ;' ?!') 8 =! ;NCB ;4 (' + ' ;= A ' ?!' / ## ;?4 #B ' 8 ; ' ?!' O E;>!#?C=' #B ' 8 ; ' ?!' O > 4 #B ' 8 ; ' ?!' 8D A=?4 #B ' 8 ; ' ?!' 8A; =4' #B ' 8 ; ' ?!' &88 @"4 #B ' 8 ; ' ?!' / ##9 A ; 4 8 F = ;' ;DC#B= # ?!' 1=?F') ?;A ' 1 #B' ?!' 2 B # ; AA ' B ; !! ' + KC#4 B ' J < ' $ 8@?= ;' ?!' /B ?4 J?B=' +?CA8 ' ?!' % ' 8 EB ' 4 2 88 <' ;@8 >' ?!' 8< NC =4 2 88 <' <! >' ?!' 2?? !#?C=' = ' J?B=' ;@8 >' ?!' J?B= #?C=

$?;' #B ' B ; !! ?<' ?!' D ; = J?B=' & ;8 ' ?!' &;;? ' 4) ?;A ' & ;8 ' ?!' ; B 88 2 88 <' 8?; ' 1 #B4 B ;8 ' & ;8 ' ?!' ;;' & ;8 ' ?!' / =<C ;' J?B=' & ;8 ' ?!' & =#?; 4 2 88 <' 8?; ' *=C ;?C; 4 2 88 <' 8?; ' $?;D ' = ' #B ' # ;' B ' !?= 4 8 F = ;' 8?; ' (8#?C=4 = ' #B ' ' ?!' (8#?C=4 8 F = ;' 8?; ' / # 8 A?4 = ' #B ' # ;' B ' ?= ' %B ' 8?; ' $; W ;' (' 8 F = ;' (9 #?C=' ?!' / ##< =4 (;' J?B=' $?;D ' ?!' ; A 9 ;; ' (' J < ' ; ' ?!' C@B< =4 (') ?;A ') ?! ?C= ' ?!' & =A8 ! 4 J?B=') ?; ?C=' >?C=A ;' ?!' / @B ' ' 8 F = ;') ?; ?=' %C#?;' ?!' / #8C;A>' (' J < ') ?; ?C=' ?!' O ! <?; 4 #B ' 8 ; ' ?!' = >' >?' ?D ;# = >' ?!' C@B# ; 88 =4 (') ?;A ' (" =' ?!' !! =#;>4 / #; @"' + C=' ?!' % ;# 4 ' 8 FL = ;' $?;D ' ?!' !!? ; =@ ' (<C 8 !!?;D ' >?' ?!' !!? ; =@ 4 J?B=' ?! ' ?!' ?! B 88' $; W ; ?!' (#; @B =' (' =;>') C#B; ' ?!' 1 =A9 E ; 4 J < ' 1 #B' ?!' % 88 A?= 4 (' 2 H 1 #B' ?!' OC 9 NCB ;= 4 J?B=' !!?;D ' ?!' O ! 8 ' (' J?B=' !!?;D ' ?!' C= <C "' 8 ;' 2 88 <' !!?;D ' ?!' C= <C "' >?C=A ;' 0 #B' ?!' 2 B # B CAB4 8 F = ; C<< = ' ?!' C8# ;' &8KB =A #?C= ' ?!) 8 @" ' >?' 4 #B ' 8 ; ' ?!' +>@ ' >?C=A ;' ' J < ') ; >' ?!' 8A?C=>' 8 F = ;' (" =' ?!' #B # 8"4 (' %B?< ' C;= # ?!' O > 4 ?D ;#) ?; ?=' ?!' 8C=>4 J < ' *== ' ?!' +;C<A !"4 <') ?; ?=' ?!' @B = @B ' $; =@ ' ?! ' ?!' @B8?! =4 (' ?D ;# *== ' ?!' 1 == ;<?= 4 J?B=') ?; ?=' ?!' ; @B8 ' !!?;D ' >?C=A ;' ?!' &@B#4 ' %B?< ') ?; ?=' ?!' ; <?=<?A # ') ?; ?=' ?!' = 9 @?#B4' 2 88 <') ; >' ?!' ; @B ' 2 88 <' %B? ; ' >?C=A ;' ?!' C ; "4 J?B=') ?; ?=' ?!' #B ; < C ;' %B?< ' $?;D ' ?!' 2 # ;#?C=4 B ;8 ') ?; ?=' ?!' ; 8 @"' <') ?; ?=' ?!') 8 =DC@" #4 J?B=') ?;L ?=' ?!' ' B 4 ' ?D ;# *; = ' ?!' C8# 4 !!?;D ' ?!' %C88?@B4 J < ') ?; ?=' ?!' ? ?<' 88 ?!' E =8>4 (' B ;8 ' #8 = ' ?!' / #9 ; @B ' %B?< ' !!?;D ' ?!' &@B#4) ?;A ' ?; !?=' ?!' / #!?C;4 ;#BC;' !!?;D ' ?!' ;C F') ?;A ') ;; ?@B' >?C=A ;' ?!' 1 = # ;; #4 J < ' J *?; ' ?!' (# =>E?? 4 ' J < ' &8KB =A!#?C=' ?!' O?A C<?4 / #; @"' O !8>' ?!' 1 =@; A' 8 F = ;' ?! ' ?!' % 88 = CAB#4 2 88 <' !!?;D ' ?!' <KD 88 ' J < ' 1 #B' ?!' CNCB?;8"4 = ; E' 2 #!?= ' 3A ' =' / # ;L B 4 8 F = ;' +?= 8 !?= ' ?!' O #8 ; <EB = 8 4 J < ') ?; ?C=' ?!' + @B4 ?D ;# C;= # ?!' &89 ; @"' J < ' !!?;D ' ?!' (@"' J?B=' O?A ' ?!' ? ?<' O #B' ?!' E8 = ' O !8 ' ?! O #8 9E ;#8 ' #B ' 8 ; ' ?!' ; A ;' >?C=A ;' ?L D ;# (<K!?=' ?!' %B?< #?C=4 #B ' 8 ; ' ?!' 8!8 A' >?C=A ;4) ?;A ' / #?=' ?!') ; = C<' %B?< ' =A ' ?!' 1 =<C= ' =;>' !!?;D ' ?!' ?>= 8 4 J?B=' = >' ?!' C8# ;@C ' =4 B ' ?D ;# *== ' ?!' 8 ;#?C=4 = ' (' 8 F = ;' !!?;D ' ?!' %?8NCB?=

$?;' #B ' B>; ' ?!' *=C ;=

%B ' O?; ' O? #B ' 8 ; ' ?!' =#? B' (' CAB' ' <KD 88 ?!' 8 ;' O? ? @"') ; =# ?!' #B # 8"4) ?;A ' C#BD ;# ?!' #8 B 884 87427' !!C;D ' "6

```
$?;'#B ' B ; ii <'?i' <'
CAB' <KD 88 ?i' 8 ;4 CAB' ?i ' ?i' 1B8; 9'
?@"4 J?B=' >'?i'+?@B8?>4 8 F = ;' <KB '
>?C=A ;' f 8 ;4+ ' ;? '?i'+ #B =4 8 FL
= ;' 4?i '?i' 8 4 + '(C#B ;8 = '?i' 1 =i# ; '
;@BD 8 ' <KD 88?i' 1 #@ #8 4 8 F = ;'+C<9'
D ;'?i' ? #B' = ' 2 88 <' <KD '?i'+ 88=
```

```
$?;'#B ' B ; ii ?<'?i' ;?< ;#
) ?;A ' @?C=#?i'% ;D # 1 == #B' 1 i#W '
?i' ;?< ;# ' (  ) ?;A ' 1 =W ' ?i' ? B KAB4
8 F = ;' #J;NCB ;#' ?i' EB 884 275' J?B=' ';9'
NCB ;#' i";#B ;?i' B 'i?= 4 ) ?;A ' + 88 ' ?i' (7
;# = 4 1 ' + 88 '>?C=A ;'#B ;?i'B '
<?; 4 = '#B ' 8A '?i' >'i?;'#B '#><4 +?= 8 '
<KD '?i' 88 = 8>'0 CB88 =' <KD '?i'+ '4
#B ' 8A '?i'J C; '#B ' 8A '?i' ?88 =i >4 = '
#B ' A #; #'?i'*= ; ;>
```

```
$?;'#B ' B ii ?<'?i'$>i
```

```
%B '& ;8 '?i' * ?;#?C=4 #B '& ;8 '?i' 0 = 4 #B '
8?; ' 8 884 #B '8?; ' ?8 884 #B '< # ;'?i' C;AB9
```

```
' ' '*(=
```

```
?882 =' 2 88 <' 8=#?8B' ?i' ?;8 = ' 1 2 8L
8 <' ?D ;#i?= '?i'*= B 4 +?= 8 ' 8=#?' B' ?i'
1 882?@B 4 %B?< ' B i '?i' C ;#?C=' #B '8 ;'
?i'(#; @B =4#B '8 ; '?i' 8 @"4 ff CAB'$; W ;'
;@; A '(+C=@ =' <KD 88 4?i' C@B =D; @"4
#B '8 ; '?i' ;D; @"4 #B ' K# ='?i' ; A= B4
8 F 1 '< ;'# = 4 ;@BD 8 ' <KD 88 ?i' ' ?8 =' <KB '?i' % 9'
@8 @B8 =' ?i' ; A =# ; ii 4 ?8 =' <KB '?i' % 9'
# == =' <KD 88 ?i' 8i?;#4 J?B=' <K9
D '#C#?;'?i'*== ;8 ;4 =AC ' <KB '?i' 1 '*9'
D ;;>4 ;@BD 8 ' <KD 88 ?i' +?C= >4 8?; ' 8
<KB '4 (  CAB' <KD '?i' 8 ;4 +?= 8 '
<KD ' 'A '?i' C@" ;=4?;'#B ' 88A 'J?i'
i?;' #B ' #>< 4 #B '8 ; ' ?i' 0?@B= '4 ;@BD 8 '
;@" E' %B '#C#?;'?i' +C= # i i= B4
<KD '?i'*= ;; E' %B '#C#?;'?i' +C= # i i= B4
J?B=' <KD '?i' ; 4 8 F = ;' <KD '?i'
;@ 8# =4 +?EA ' <KD '?i' 8 =< @"; 4
J?B=' <KD '?i' ; @B ## =4 8 F = ;' <KL
D '>?C=A ;'?i' 8 ;4+?CA ' ' <KD '?i' )8 =9
i =' = '#B ' 'A '?i' 1 =#>; ' i?;'#B ' #>< 4
2 8# ;' <KD ' '?i' ( " K =iB +C=@ =' <KD '
?i' )8 =@ ;; 884 +C=@ =' <KD '?i' 8 ;=# D ;'#
J?B=' <KD '?i'1 ' 88 A 4 #B '8 ; '?i'0 ;A 4
#B '8 ; '?i' 0?CK4 ;@BD 8 ' <KD '?i' C@B#?9'
<?; 4 = '#B ' 8A '?i' >'i?;'#B '#>< 4 +?= 8 '
<KD '?i' 88 = 8>'0 CB88 =' <KD '?i'+ '4
#B ' 8A '?i' JC; '#B ' 8A '?i' ?88 =i >4 = '
#B ' A #; #'?i'*= ; ;>
```

```
$?;'#B ' B ii ?<'?i'$>i
```

```
%B '& ;8 '?i' * ?;#?C=4 #B '& ;8 '?i' 0 = 4 #B '
8?; ' 8 884 #B '8?; ' ?8 884 #B '< # ;'?i' C;AB9
```

```
' ' '*(=
```

```
' 4 (  8 F = ;' ;C@ '?i' ;'??<D 88 (  B ;8 '
8" # ?i' / #i ;; =4 (  =;>' 2 ; 8 E' ?i' / #9'
; ' ?=# #B'?i' = i??;
J?B=' '> >'?i'% 88 D?8 ' 0 = >'?i
+?EA8 '?i'& ;' =" 4 (  J?B=' 88?8<'?i'*=C ;# 84
+?EB ''J ;'= =" ='?i' ?8 =4 ) 0?8 ' ;;  '
K?;'# ?= ;' ?i' 1 == iE?? 4 / #; @"' ?D ;'# D= ' ?i'
(<  ' '4 #B '  88A '?i' 1 =;?i ' i?;' #B '#>< 4
= ' (  2 ' ' <' ;C@ '?i' 1 =;'?i
```

```
$?;'#B ' B ; ii ?<'?i' <i'
```

8 ; ?!%;?CK) ?;A 1 #B?!1?;#B! 8
); =# ?! + =8CA8C! 2 8# ;(# E ;# ?! ?A4
J < A 8 ?! /C8 %B?< A 8 =
?A#?C= 8 F = ; >?! ;=D #B J?B=
Q 8 F = ; D ;@;?<D 8 ; = >?C=A ;?!
)8 ! @B J?B= A 8 ?!1 <K@ ;= A 8
>? ?!1 <K@ ;= %B?<)?; ?C= ?! ; = @B
*== ?!& =A #B (# E ;# ?!
1 8< B B ;!?= >?? !2 # ;#? '=5
#B 8 ; ?!/ ;"=)?; ?##=/;? #(# E ;# 8A
J?B=)?; ?C= #B 8 ; ?!) ; =#/ #; @"=) ; =#
?!&8@B 8 F) C!!?! ; @? 8 F = ;) !!
?!1 #B<?; / #; @"=(# E ;# ?!% = @B
>?! = A >?! #8> 8 FL
= ;)?; ?C=?! C@D>= B = J^ =)?;L
?C=?!) 88?E@B>

$?;#B B ; !! ?<?! ;"=>Q p #8 =
;@BD 8 (# E ;# ?! ?;;?E ?D ;# (# E ;# ?!
EE ;"=2 88 <= 88 == ?! (# =B?C! J?B=
(# E ;# ?! C;AB 2 88 <+?EA8 ?!&A 8!8 E
J < " ?!% =" ;= J <);B <?!
);B < B 88 =;>);D <?! ;@"= +
; A?! ;! = > 2 88 <; A ?!);! >
0 E% =@ (=@8 ;?!3C = 8 0 E% =@ (# E ;#
?! A#?C= ?D ;# ;C@ ?! (?C= DC;AB =L
; E ;C@ #C#?;?! B8C= %B?< 0 !8>?!
' # = J?B=) !! ;# ?! C!# = J < 8
KB =# ?! ';

$?;#B B ; !! ?<?! 8 @"< == =
%B & ;8 ?! ;;) ?;A @?C=# ?! % ;D #
#B 8 ; ?! 8 J?B= 1 ; ?!) ?A ; ?D ;#
8= ?!%C88 88 =) ?;A D ;@;?<D ?!
;C@ ?!1 < # #B 8 ; ?!% 88 @?C#;
#B 8 ; ?!% 88 D? - $; =@ * # ;#?C=?!
/ ;"<8=) ?;A (# ;8 =A #B 8A ?! '?E >
!?;#B #><

$?;#B B ; !! ?<?! ?!
%B @?C=# ?! % ;D # #B 8 ; ?! 8= A?C=
%B 8 ; ?!$?C8 >?C=A ;# #B 8 ; ?!* *=#? B
() ?;A ?=;?!?! C8; = (8 F 1 =W ?!
?CD (?; *(*1 =W ?!!! = ?= D ; !! L
KC# (+ ?= 8 = ?!%C '?@B 8 F = ;* 9
1 =W ?! 8= C#B 8 F 1 =W ?!) ; 9
8?@B 8 F = ; 1 =W ?! K8 @;?! ?;>
1 =W ?! @ #8 J ?=;?!?! E9
<?;) $;= ?!% ;8 AA J?B= >=
?! + 8= @ @#?;B8?=;?!?! +;C<<?= J?B=
?=;?!?!$> ;)?;A ?! ?!* ?; =@B 1 =L
= #B 1 =W ?! (@ #E 88 J?B= $?% !# ;?!
C8= C8 2 8# ; ?! ?! ?E 88 @B B8 8@?8<
?! ?! 1 = @ J + $;= ?!/ #@ 8A ?= 0
+?= 8 ?! ?! 1=?@"A ;# P2 88 <?! ?!
8 8 F = ; ?! >?C=A ;?!/#" = * *
J < * *1 =W ?! / 8#?C= 8 F = ; ?! ?!
0 #8 # ;; 8 ?8 = ?D ;#!?= ?! 1 = @ 8 FL
= ;?! ?!& # ;! ;= ?;>+ =AE 88?! <
DC @C;;> CKK ;? ?;> * 88 ? ?! <DC @C;;>
= #B ; #B K;? #?; 8 #D 8A ?!%=D =A
!?;#B #><8 F = ;* !?=;?! ; C8 (
) ?;A * *1 =W ?! ?! 8 CAB * % ? ; @"

K; =# @ =#B < =C! @#?; = #B # =>EB?
B ?;B 8 =A A #B < 8 #? =>?!! @ ; ?!#B !?;@ B 8 CK?=#B ; < # ; @8 < =A #B <= K;? C@ =A#B ; = =#C; #?#B ?!! @ ; E #B EB?< 8 > =A A = ; !?C= =A#?B < EB # <?= >B B #B A =#?#B KK; =# @ D ; #?; #?#B ; < # ;=) ; =# = B ; D>) ; =# #B >; ?!#B D? E; ## = K # # ?=?!&?D ;#) D =#B # ; < !?; !

%&' # =A?!& # # ?!#B 1 =A ?< B 8 d2 ;; =# =A@?= ; #B K?;# ?! ?< < ## ?!#B ; ; # ?=?! =C<D ;= KK? =# !?; F < = # ?=?! K; !?= ; "17 .%310 < #? <' = =# J?B=' (< #B' @8?! K; !?= ; ; =A #B # #B @?< < ## B =A @ 88 #B J?B=' D !?;' #B <' = &F < = B <= B ; K; ! =# #? #B <' %B # B B =A 8 # 8>' D =' ; =# #?' #B 8 ; ?!' ; A = =?E' < ; = E 88 =A =' ; = B E K; 8 E #B' D>' #B 8 ; ?!' ?; D = ?#B ;!; = ?!' #B 8 ; ?!' ; A #?' A? D;? Q ! ;@B' !?;' ; A = = ?C;' #?' D; =A' B <' B?< # 8 # #?' ; @ = #;C@# ?= !;?<' B <' !?;' ?; ; =A' B K; # !! ; = #B # @@?; =A8>' B =A' A?= A?# / ! # 0?= ?=' !;?<' ?= C;' =# = (@; # ;>' #?' A? #?' $; =@ EB ;' ; A E C# #B # D !?;' B @ < #?' / ; ; A E ; <? !;?<' #B # K8 @ = ? =; B <' =?;' @?;; K?= E #B' B <= =?;' =>?#B ;' K ;!?= =' =' KCD8 @"' < ## ; ?;' ? =>' #B =A' =' #C;D =@ ?!' #B K; ! =#)? ;=< =# = D =A' ; #C;= B?< # 8 =#B' ?!' & =DC;AB E ! @C; D>' ?; ;' %B #;C #B' EB ;?!' D =A' ## # D>' K;? # C ;' K; ! =# =' #B @?< ## 8!?' B D =' @8 ; D>' ?#B ;' < <D ; ?!' #B & # # = #B # ! ; 8' ?#B ;' K ;!?= B D =' 8# E #B' D>' #B !; = #?' C= ;# " #B *<K8?>< =# = #B ;' D =A' = #B ;' =!?;< # ?=' =?;' K;?D # ?=' A = # B <' #?' ; = ;' B <' !C K @# #?' #B A? ;=< =#' *#' #B ?K = ?=' ?!#B ?< ## #B # B D # # 8 D ;# #?' L #C;=' B?< D = @# =A' B < 8! =' #B ?; = ;' !?;< %B & # # B KK;? = KL K;? #B D? ; K?;# = B A =' = A; =# = B ; D>) =) ; =# !C88' K?E ;' = E ;L ; = #?' #B 1 K ;' ?!' #B %?8D??#B' ?!' & =DC;AB' #?' ## #B J?B=' (< #B' # 8 D ;# !C;#B' ?!' #B %?8D??#B' = #B # =' ; K @# #B J?B=' D !?;' F#; @# =A' B ; ?!' B D?C= = @# B <L 8! CK?=' B ! #B' B; !# =# = ?=' B B?= # E?; #?' 8 K @ D8>' Q E #B' 8' !CD< ! ?=' #?' #B K; ! =#)? ;=< =# C= ; 1 =A' 2 88 <' = 3C =' * 8 ;># = #?' ?<K ;' = ! # B < 8! D !?;' #B & # # ?;' @?< < ## ?!' #B <# ?;' !C@B' K ;!?= !! 8' D *<K8?> D>' #B 1 =A' = 3C =' =' #B)? ;=< =# ?!' #B 1 =A ?<' !?;' #B #> < EB = ? ;' B B 8' D @ 88 ?;' @ # !?;' #B # !! @#

%' *=' ! ?; ?!' #B ! 88 ;' ; #?; ?!' !?;! C8# K ;!?=

%' % &' & # # ?!' #B 1 =A ?<' D =A' !C88>' ; L ?8 '#?' KC# #B '8 E '#?' C ' = ' K ' F @C9' # ?= ' A = # 8'; D 88 ?C ' = '#; @B ;?C ' CD @#' EB?' B 8' =?#4 !CD< ##' #?' #B ' K; ! =#)? ;=< =# ?!' #B ' & # # 4 C= ;' 1 =A' 2 88 <9' = ' 3C =' ;>4 ?' #B >' ; ' <? # 9E 88 =A' #?' K #;?= W ' = ' =@?C; A ' 8' #B 'EB?' ; '#;C ' = '8?> 88' #?' #B ' < =' = ' #' D =A' ?= ' ?!' #B ' A; # A; = '?!' #B ' # ?=' #B # =' #B ' 8 # '#>< 4 < =>' B?= # = ' ! #B!C86' !CD # ' B 'D =';C = ' = ' C= ?= ' =' #B ;' # # ' = '!?;#C= '!?;' ?#B ;' < = ' ; < ' = ' 1 D ' ?= 4 #?' EB @B' #B >' B '=?' @ ! ?= ' %B ;!?;' #B ' & # # '!?;' #B ' !C;#B ;' = ?C; A 9' < =# ' '" A?? '!CD # ' =' #B ;' ?D =@ ' = ' # #'=?' K ;!?= ' D ' KC= B '!?;' #B ' @;>< ' ?!' = ' ?#B ;' +? ' + @8 ;' ;' ; =' #B # =?' ! 8' ?;' ; #?;4 K ;!?= 88' ?;' ; '4 B 88' D ' K; C A '?;' 8??! ' =>' ?!' #B ;' 8 = ' ?;' # # 4 ?;' =>' ?!' #B ;' #;C ' = ' C # !?C< ' ; # =A' #?' #B <4 D>' #B ;' 4 ' D #?; ' !?; ! C8#?;4 C=8 ' #B ' ! ' ?;' ; #?; ' N>=' @?=@C;;' E #B' ?;' ! # #B ' ' CK ; ?; ' ?;' D #?; ' =' #B ;' #; 9' !?= '?;'; D 88 ?= 4 = ' ?; = ' #B ;' K; ! =# '#?' D ' K; =# ' = ' !?;#BE #B' KCD8 !# ' # #B ' < ;@ # @;?! ' ?!' & =DC;AB4 = ' B ' DC;AB ' ?!' #B ' ; L K @# ' B ; ' ?!' #B ' 1 =A ?<

%' =' ! ?; ' ?!' &?D ;#) D' < ;@B =# =' (# ;8 =A

>3' A A ' ' K # # ?=' K; ! =# '#?' #B ' < # =A' ?!' #B ' & # # ' D ' ?D ;#) D' < ;@B =# =' (# ;8 =A' (B E =A' %B # EB ; '#B ' K # # ?= ;' B =A' = ' < =C! @#?;>' #8 ' # (# ;8 =A' D>' E ;; = ' ?!' @#' ?!' / ;8 < =# !?;' #B ' < 4 = 'B =A' *<K8?> ' ; 8' K; =# @ '!?;' #B # !! @#4 =?E' #B ;' '#B; ' ?!' #B <' ;# '#B ' 'K # # ?= ;' = '# " =' ?=' D>' #B 'K; ! =# ?!! @ ; '?!' #B ' ;<>4 EB @B' E 88' C=L ?CD# 8>' K;? ' = ' A; # 8?!' D?#B' #?' #B ' < =C! @#?;>' = '#?' #B ' K # # ?= ;' C=8 !' #B ' # # 'K;? > ' = ' ; < ' A = # #B ' < 4 = '!'= 'D '#B ' K # # ?= ;' ' ; '#?' FB D # '#B ' = =#C; ' C= ;' #B ' 'K; =# @ ' B = ' = ' #B ;!?;' ; =A' #B # #B ' '#B; 'K; =# @ ' < >' D ' ?; ; ' D>' #B ' ?!! @ ; ' #?' ; #C;= ' #?' #B ;' *<9' K8?>< =# ' = ' #B # #B ;' < >' D ' !C@B' ?; ; '8 > ' ?C= '#?' #?KK' #B '8>" '#?' ! 88' ?C# B ; !# ;' '#B ' ! ' K # # ?=' D ; ' 2 B @B' / # # ?=' D =A' D ; ' ; ' = '@?= ; 'D>' #B ' '& # # 4 %?A #B ;' E #B' #B ' ; K?;# ?!' #B ' ?<< ## '!?;' ! @C; =A' #B ' K @' #B ; = =# %B >' B ' K;?B D # ' = ' + @B ;A 4 = ' D>' #B ;' K; ! =# ' K;?B D # ' = ' + @B ;A ' #B ' ?!! @ ; ' =?E' ; @;C # =A' ?;'8 =A' 31-+' ?<K => ' #?' # " ' ?=' =' #B ;'8 '#B ' KL

.' !C (@ =#@; E'?!'(< =' = '?#B ;'K ;!?= '?='D? ; '?!'#B '$; =@B' BK' W ' = '! @C; 'D '#B <'!?;'#B 'D B??#!'?!'#B '& # # 4 = '#?'D; =A'#B ' 'BK'!;?<'#B 'K8@'EB ;'#B ' <'=?E'8> '#?' EK?;#)8 A?E4 = '#B ;'! @#; '#B ' '!8 K'; " =A'A?? ' = '8? =A'#?'D ' K?! 'CK?='#B '& # # ' B 88?; ;4 = '+?'B ; D>'E ;; = '#B ' 'K ;!?= '#?'K; !'(< =' !'= 'D '!?;'#B #' !! @#4 = '#?' K? '?!' '<C@B'?!'#B '8? 9'=A'?!'#B ' 'BK' '< >'D 'E?;#B'#B ' FK =!!'#?'D ' DC; 'D '#B ' 'K ;!?= '!?;'< " =A'#B ' '?> A '!;?<'1 =!>; '#?' EK?;#)8 A?E'0

% &'& # # 'A; =#E ; = ' = 'C#B?; W ' = '; NC ; ' 8 F =#?;' ‖8 # ;'?!'0?CK ' = ' =AC '<KD 88'?!'1?'D! ;>#?' = '?;' ?= ?>'!;?<'1 =#>; '#?'#B '#?C=@'?!'(8 A?E'#B 'K; !?= ; '8 # 8>'# " =' ='#B ‖'$; =@B' BK4 ! @C; 'D>'#B 'K ;!?= '!?;'#B 'D B??!! '?!'#B '& # # 4 = '#?' = ' '! @C; 'AC ; ' 8?=A'E #B'#B <' = '#?'K? '?!' 8'KC@B'?!'#B '8? =A'?!'#B ' 'B K' '< >' !; >'#B '&FK =!8'?!'#B ;' ?C;= >4 = '#?' 8>' ;'#B '! 'K; !?= ; '#?'#B ' A #; #'?!')8 A?E4 EB?' ; '#?'! @C; '#B <' # 88' ! ; ;'?; ;'!;?<'#B '1 # #

+52@6"+' % &'& # # '?!'#B '1 =A ?< '+?'?; =' B ;8 '#8 = '8 # = =#A? <?C;'?!'#B 'A ; !?= ' ='. 275%75%-' #B ' !' = ' #B ;' =! ; ?;' ?!! @ ; '#B ; =4 E #B ='+41%/2!5' #E =#>'!?C;'B?C; ' !# ;'#B ' =# < # ?=' B ; ?!'#?'%87/2+' A 'CK'#B ' ?<< = '?!'#B #'A ; !?= 4 = '#?' 9'8> ;'#B 'K; !?= ; ' ;< ' <C= # ?=' #?; ' = '?#B ;'#B =A 'D 8?=A =A'#?'#B 'A ; !?= 'CK?='*=9'=# ;'#?' ;@BD 8 '+;==D ;'EB?'B 'E ;; = '!;?<'?;') = ; 8' ‖1 >'#?' ?<< = '#B ' ') ; L!?= '!?;'EB @B'#B '*B '' D '#?'#B ' ' B ;8 '#8 = ' '!C!! =#E ;; = ' = 'B 'A =A'?D L=@'%B '& # # '+ @8 ; 4 #B #'B 'B 88'=?#D '#;?CD8 '='B 'K ;!?= '?;'!?;#C= '!?;' =>'#B =A'B 'B ' @# ' ='#B ' ?<< = '?!'#B ' 'A ; !?= 4/;? > =A'B 'B ' ! #B!C88>' @B ;A 'B '#;C!#B ; =4 = '!'#B ' ' B ;8 ' #8 = 'CK?='=L# < # ?='B ; ?!' B 88'; !C!'#?'A 'CK'#B ' ?<L< = '?!'#B 'A ; !?= '%B '& # # '+? 'A '?; ;'#?'B ; 8 '?;'KC;! =#E #B'#;C<K # ;'#?'@B ;A 'B <'#?' 8> ;'CK'#B '! < 4 C= ;'#B 'K ='?!'#; ?= 4 = 'K;?B B # ' = '+ !@B ;A ' =>'K ;L!?= '?='#B ' ? #!> ' #B ;' ='0?#B ='?;'$>!'#?' ?;; K?= 'E #B'#B ' ' B ;8 ' #8 = '?;'#?'!C;= B' B <' E #B' @#C 88' ?;' ?#B ;' K;? ! ?= '!# ;'#B ' '@B ;A ' B 88'D 'A ='#?'B <

%' !?;' ' ?8C=# ;' ?=#; DC# ?='#?' #B '*; !#F' = '$; =@B' /;?# !# =#

VG' % &'& # # '?!'#B '1 =A ?< '# " =A'#?'#B ;'! ; ?C '@DB <# ?='#B #'#B ;' ;'< =>' !#; ! '/;?# # =#'!8 '?C#?!'*; 8 = ' = '$; =@' =#?

#B ' =A ?< '!<?*B 8# ;' = '; !C A 'EB?!'= @ !9'#?C '@?= # ?=' @ 88'!?;'#B '@B ; # D8'!CKK8>'?!''A?? ' B; # ='%B ;!?;'#B '& # # ' +? 'A; =#E ;; = '!?;' ?8C=# ;' @?=#; DC# ?; '#B;?CAB?C#'#B 'EB?88' 1 =A ?< 'D?#B' =' K ;?@B '@BC;@B '= '< # =A'B?C! '!?;'#B '; 8 !! '?!'#B 'K;?9'7# # =#' = '#B #' #B ;' #'#B ' ??; '?!' ;" ' = '< # =A'B?C! '?;'#?'; @ '. '! < '!;?<'K ;!?= '#'#B ;'K; #'B?C! ' '#B ' < = !# ; ' B 88'#B ="'<? #' !! @#C 884 = '#B #'E #B ='!>!# ='+ > '!# ;'=# < # ?= ' ?C#' ?!'#B 'KC8K #' =' !C@B' K ; B 'EB ;'#B ;' ; 'K; ! =#< = # ; ' = ' 88?E '#B = '#?' ?+! @#270 + >'E #B ='!! '!>!# ='+ > '!# ;'#B '=# < # ?= ' = 'D !?;'#B '!8 ; # ?!'JC8>4'EB ;'#B ;' ; '=?' K; ! =#< = # ; ' = ' ?; = '#B '< = # ; '#?' =# < # '#B '! < 'CK?='#B '#E 8 #B4+ >'?!' '= F#' #' & =DC;AB4 = '#B ' = F#'0?; ' + >'#B ; !# ;' D =A' #B ' =>=# =#B' =' @B'K ; B' @BC;@B'?;' < # =A' B?C! '?='#B ' ?C#B' > '?!'#B '; ;'?!'% >4 = '?='#B '#C =#>' F#B' + >'?!'(8 >' D =A' #B ' 0?; ' + >'#B ; !# ;' =' @B'K ; B' @BC;@B'?;' < # =A' B?C! '?='#B ' =?;#B' > '?!'#B ' '; ;' = '#B '& # # '+? 'B ; D>' L@?<< = '#?' #B ' < = # ; ' ?!' @B' K; B>#; '?;'K;? =@ 86' ! <D8>4 E #B ='EB @B' #B 'K ; 8B 'B =A'=?'K; ! =#< = !# ; '8> 4 #?'K; @B' ='#B ' 'K ; 8B '#B '#>< '#B >' < " '#B ' '=# < L# ?=4 = '#B #'#B >'E #B' #B ' ! !# =@ '?!'!C@B' ?!'#B 'K ;?@B = ; ' ' ; ' D # NC 8 ! '!?;'!C@B' 'B ; # D8 'E?;"' ?'< " '#B ' '?88 @# ?= ' = 'EB ='#B '<?= >' ' ?88 @# '%B '& # # ' ?'B ; LD>' KK?>=#'#B '@?88 @# ?=' ?!' @B' K ;?@B' @BC;@B'#?'D ' 8> ; '#?'#B '<? ; #?;'?!'#B 'K; B>#; '?;'K;? =@ 86' ! <D8>' CK?=' B ' ; @ K#' D ; =A'#B ' ?C< '#?'EB @B'#B ' ?' @# ?= '?!' @B'K ;?@B'&F# = '?!'EB @B' ; @ K#'#B ' ; @ ;' '#?'8 ' ?K ' !CD!@;> ' D 'B <' E #B'#B ' <? ; #?; ' = '#B #'#B ' < = # ; '?!'#B '! ; 88' < # =A'B?C! '+?'8 " E > ' 8> ;'#B ;'@?88 @# ?= '#?'?= '?!'#B ;'=C<D ;'#?'D ' KK? =# 'D>'#B <'CK?='B ' ; @ K#'?!'#B '! < =' =' < == ;'!?; 4 = ‖?; = '#B ' '<? ; #?;' = ' < = !# ;'#B ; !# ;'#?' 8> ;'#B ' ' ; K @# ' ?88 @# ?= ' #?'/ #; @"' C;; >'A = ; 88' ; @ ;'?;'B ' KC# '!?;'#B 'C ' !?; 4 CK?='B ' ; @ K#E #B'#B '8 # '?!'#B 'K ;?@B'@BC;@B ' = ' < # =A' B?C! 'EB?'@?=L#; DC# ' = '#B ' ?C< ' ?88 @# ' =' @B'?!'#B <'#?A #B ;'E #B'#B ' CD!@;> '@?K ' 8 !#E #B'#B '<? ; #?; ' = '?#B ; '!?; '?!'#B '; @ K# 'A; =#L'B '#B <4 EB @B' B 884D ' = '!C!! @ =# F?= ; 9'# ?= '#?'#B <4 = '#B ' '& # # ' ? '!C;#B ;'?;9'= '#B #'#B ' ; @ K#' #?' D 'A; =# 'D>'#B ' 'A = ; 88'; @ ;'D '8? A ' ='#B 'B = '?!' (‖J?B='4 CK?='B 'A; =# =A' ' ; # ?= ' C= ;' B 'B = '#B #'B 'B #B'#B ' < ' ='B '@C #? 4 EB @B'; @ K#' ; '#?' D ' " K#D>' B <4 C=# '' #B ' '<?= >'#?' D '@?88 @# ' B 88' D '!C88>' #; DC# 4 = ' B 88'#B ; !# ;' D ' 8 ; 'D>'B <'#?'#B 'K ;L!?= ' ='EB? '! ?C; '#B >' ; '@?=@ ' = '?; = '#B '! ; 88' B ; !!'@8 ;" 'E #B ='#B '1 =A9

?< #? #; DC# K; =# @?K B ;?!# #? #B ; F < = # ; =@BC;@B ?;< #=A B?C E #B =7 %> B>; E[@?= = =# A =@ 5 = 8 " E > KK? =# #B ;K; =# #? D K; =#

= =#K; D; (= K ?!#B KCD8 @ 77 7

*#& *%%&+ #? #B @?<< ## #? @?= ;?! !! #C J < =!?;K; =# =A#B D; " =A CK ?!# #B KCD8 @"K @" # ! ; D;?" =CK B B K?E ;? #? @C; #B K? D?>C=# '' B A @@?C=# B? 2 #@?< #? D D; " = = D> EB?<

: H2++275 6"+5-!%Q-+@ %7# . 8,S-3,0

+& &+ #B # #B 0?; ;A =>B AB#> <C " # = #E =#>K @" !?;#B C B ; A9 < =# = #B # K# = 8 ; =#B &; ?!) 8 =@ ;= ; A < =# B !?C;#>< C " # #E =#> K @" !?;#B C ?!B @?<K => 8 ; #? #B < D> #B 1 K ; ?!#B KCD8 @" ;< # ; CK?= #B ; ; @ K# #? < " #B < !C;#B@?< =A !?; #B C ?!#B KCD8 @"

% &? ; C= ;E; ## = ; @# #? K#7 2 88 < < 8#?=

: +5-+3" 2:32%7 2. %!3"700

% &< =A ?!#B & # # C= ; # = =A#B # 8D # >?E ; >?C; ?<< ! ?= = *= #;C? # ?= ; 88 > =@ 4 > # >?E B =?# 8 4E #B #B !; AA?# EB ;E #B #B > ; ;> <C@B ! # ! =A#B # !! ; ?!A; # *<K?;# #? #B KCD8 @"K @ ?!#B 1 =A ?< %B ;!?;>?E ; B ; D> ; NC ; !C;#BE #B #? ## E #B C@B K;? ! ?= > ?E B 4 = #? K;?! @C# #B @?<< ! ?B = = #;C@# ?= E^7 >?E B ; L @ 4 = D =A =!?;< #B # #B ;; D? # ; E =A #?A #B ;# ?;= ; ; A! ;AC > E ; E #B 88 FK # ?= #? D; "?;DC<#B D? #

@ ;#?C= +C=@ = !!?;D ?! ?' = (# CAB7 <KD 88 ?! ?8 ; = J?B= <K # ;?! / #9 8 ; (# J?B= ' (# B ;8 8" # # 2 88 < < 8#?=4 J < !!8 #@B ;4 ?7 (< #B4 J?P = ;9 !?= ?< ! ?= ;?;?;) 8 A?E J?B= C ;@ <!99 ?= ;?;?;- #?C=?! ;? CAB ;?C= Q 8 FL = ;(K ## 88 #? D @?< ## ?!#B & # # C; L =A - #><?!#B ;? ?C;=< =#49 = =?< = # o KK?>=# + C" ?!< 8#?C= # B CK ;9 =C< ; ; 4 = #? K; =J ?< ## EB =B B 88 D K; =# = = B 8;! =@ <K?E ; 56#?@B??! #B ;?C= K; =#4 = #B & # # ? A = A; =# !C K?E ;E ;; = = ?<< ! 7 ?= #? #B <?;? =>#B ;# =?!#B <#B ;D =A 88E > #B; =?D8 < =4 #B; ?< ! ?= ; !;?<BC;AB %? B # #& =DC;AB#B ! < + > =#B !# ;=??= !?;#B ! ; # +> 8 = #B ; !# ;# !CNB#>< #B > B 88 #B =" ! ##4 = #? # " !C@B ?C;! = A !C@B ?; ; 4 2 ;; C Q =!#;C@# @ B 88 B = ! ;>!?;K;?! @C# =A#B @# 8; < D> #B &!# # E #B / ?E ;#? #B <CK?= =!?;< L # ?= #? 88 D !?;#B < = ! @C; !C@B K ;!?= ; !C K @#4 = #? ! ## # 8 D ;# ?;= 8 ;A !C@B ; ; 8; K; !?= ; 4 ?; B 88 B ; !# ;D ! @C;9 B #B ;E ;; = #B > B 8 @ C! 4 E #B K?E ;8!? #? #B <#? A !C@B ?; ; #B > B 88 ! = ; NC ! # !?;KC## =A #B 1 =A ?< = K?!#C; ?!+ ! =@ CK?= => < ;A =#4 #B ;?0 !?;; A= = ! ?= ?;=# # = *=!C;; @# ?=4 =

#B KCD8 @"K @ ?!#B 1 =A ?< %B ;!?;>?E ; B ; D> ; NC ; !C;#BE #B #? ## E #B C@B K;? ! ?= > ?E B 4 = #? K;?! @C# #B @?<< ! ?B = = #;C@# ?= E^7 >?E B ; L @ 4 = D =A =!?;< #B # #B ;; D? # ; E =A #?A #B ;# ?;= ; ; A! ;AC > E ; E #B 88 FK # ?= #? D; "?;DC<#B D? #

!?;< " 88 A !! @#C '#B 8 ?!#B !?;@ 4 8L ; KK?>=# !D>#B & # # 4 = <C # ; =A B + K? =A?!#B <4 #B > B 88#B ="! ##4 = #?# " @?C;! 4 #B # #B <K? # ?= =?E 8 ?= D>#B & # # = =>D>A?= ;; ; ?! 8 = ?#B ; KCD8 @" +C # B D;?CAB# = = E #B K?E5 ;#?#B <= @ @ ?! =># <K?;# =# F A =@ EB @B < >; NC ; < # =A ?!#B & L # # D !?;#B + >#?EB @B#B > ; ?C;= %? = = ?= =#B <4 = A = ; 88>#?@# = ? 88 = !C= ;>?#B ;#B A ; NC ! # = *=@C<D =# #?#B <= =#B + !@B ;A ?!#B #;C #4 EB !B < >@?= C@ #?B # ; @ 4 = #B KCD8 @"A?? ?!#B 1 =A ?< 4 = *# B ; L D> ; = #B # =?= D D! =# !;?<#B ?<L < ## E #B?C# 8 = #B #B ?<< ## # " @ ; #B # #B ; D ' E > NC?;C< K; =# = #B & # # KK?>=# #B ?<< 8 ?= #? @?=9 # =?E C=# 8 #B > < # A =?;#B # B L # K8 C; !# ;B @@ K# =@ ?!#B @;?C= ! " =?C= #B ; =

%? =! ?; ?!#B A !#; # ?! ;

& %#B CKK8 @ # ?= K; ! =# #?#B < #9 =A ?!& # # *== = < ?!#B 8A ?! ;? (B E =A #B # #B ;D =A C D> #B # #?C= #B B 8! >; ; ! K; =A ;# < 4 = #B !! ;< ; ?!#B ;< 8= = ?#B ;; = E ?C# ?! EB @B #B >K >#B ; ! = =#B ;8 # #;?CD8

, , '*(=) , / + %+ " , % , " # * %

+' 7 3

' , , *' 4+ 40 , , , ,

/ + %* ' NC>; =A'#B ' DI =#

<D ;'#? ## =

(; % &' &&%*)' $' % &' &(% %&(' # " 9

BA'#?'#B ;'@?= ; # ?=#B '#D>'#B '8 E '?I'#B '

1 =A ?< ' 88 ?D8 < =' = ' ?< = ?= ;' "@# '

I?'; B>; ' = 'DC;AB 4 ;'B?8 ='#?' A '#B ';

K; I =N ' =' / ;8 < =# 4 ?= =# ?= ' = ' < #L

=A '?I'#B '&# # 4 =' ## = '#B '+> # '#B ;?I'

C= ;') ;# =' K = ' = 'K = # 4 = '#B # D>'

' /;?@8 < # ?=' ?I' #B '#E 8#B' ?I' K!;> ' 8 # 88

D8 < =' = ' ?<< I ?= ;'I;?<' B>; ' ?

DC;AB ' E ;'; NC ; '#?'; K ;'#?' #B '#?C= ' =

= '#B '+> # '?I'#B ' < #=A'?I'&# # '#< ;'

#B 'K ='?I' < D=< =#4 = '#B '&# # ' B =A'

#B ; I# ' ?C;= '#B ;'=;= # =A'C=#?' #B ' > '

= '=?E'D =A' < ## = 'I(= =A' ; 88 < <L

D ;'#?'D ' DI =# %B ;'I?;'#B '&# # ' ?'?; ='

= d ; NC ; ' 88 ?D8 < =' = ' ?<< I ?= ;'I?;'

B>; ' = ' DC;AB ' 8I2 '#B? 'EB?'I?;< ;8>'

E ;'K; I =# '#B?I'EB?= ;'@ <'#?'#B '< #L

=A4 #?' K ;'#? #B ' #?C= ' D #E F# <F '#B '

#C =#>' AB#' >'?I' >' = # =#' = '#?' ## = '#B '

* '; #C;= '#?' EB # K# =' >@ 'B 'E; ## ='#?'

#B '&;8 ' B <D ;4 = '#B # #B >' # = 'E #B?C#

#B ' ??;' K;?> =A' ='#B ' < =' #>< '#B # #B '

&;8 'D 'I @C; 8>' = '@@?I 8>'" K '%B '&# # '

? '8 " E > '; NC ; '>?E'#?'K;?I @C# '#B 'I?;< ;'

?; ;'A ='I?;'#B ' < ;@B'?I'>?C;'; A < =# =#?9

$>I 4 EB ;'>?E' ;'#?'@?;; K?= 'E #B'#B '&;8 '

?I'0 =' ? E 88#B #= #B ;'?I'>?C;'#E?'; A < =# '

=@?< < ? '#B '?#B ;'=';8 # ?=#'#B ;'NC ;'# ;

' , '*(=) , / + %+ " , % , " # * %

#B '&;8 ' B <D ;4 = '#B # #B >' # = 'E #B?C#

' DI =# #B ;'i; ' E #B?C# 8 i;?<' i;?<' #B '&# # '

;# ?I' #B ' < # =A' ?I'&# # 4 =' =?# #?' D '

+> # ' ?I' #B ' < # =A' ?I'&# # 4 =' =?# #?' D '

;'# I =A' C@B' ' B 88 =?# A '?D =@ '18 #

#B >' B 88 =?#?=8>'D ' <K; ID= ' = '8> D8 '#?'#B '

I>= '*<K?I '>' D>' @#' ?I' / ;8 < =# I?;' DI =# '

DC# #B >' B 88 8I?' D ' B?8 =' ' II @# '#?'#B '

)? ;'=< =# = 'K;?@ ' A = # @@?; =A8>'

= 'A; =# 'E ;; = '#?'B ; 8 ' < ; 'K;?I 9'

=# '#?' K 8 '#?'#B ' < ;@ # ;?8 ' ?I'&' =DC; AB'

= '#?' < " 'KCD8 @ # ?='?I'#B ';K; I =# '#B '#=?= '

< >'K; # = ' A=?; =@ ' = '?; = '#B ' < '#?'

D 'K; =#

(; % &' &&%*)' $' % &' &(% %&(' # " 9

BA'#?'#B ;'@?= ; # ?='#B '#D>'#B '8 E '?I'#B '

1 =A ?< ' 88 ?D8 < =' = ' ?< = ?= ;' "@# '

I?'; B>; ' = 'DC;AB 4 ;'B?8 ='#?' A '#B ';

K; I =N ' =' / ;8 < =# 4 ?= =# ?= ' = ' < #L

=A '?I'#B '&# # 4 =' ## = '#B '+> # '#B ;?I'

C= ;') ;# =' K = ' = 'K = # 4 = '#B # D>'

' /;?@8 < # ?='?I' #B '#E 8#B' ?I' K!;> ' 8 # 88

D8 < =' = ' ?<< I ?= ;'I;?<' B>; ' ?

DC;AB ' E ;'; NC ; '#?'; K ;'#?' #B '#?C= ' =

= '#B '+> # '?I'#B ' < #=A'?I'&# # '#< ;'

#B 'K ='?I' < D=< =#4 = '#B '&# # ' B =A'

#B ; I# ' ?C;= '#B ;'=;= # =A'C=#?' #B ' > '

= '=?E'D =A' < ## = 'I(= =A' ; 88 < <L

D ;'#?'D ' DI =# %B ;'I?;'#B '&# # ' ?'?; ='

= d ; NC ; ' 88 ?D8 < =' = ' ?<< I ?= ;'I?;'

B>; ' = ' DC;AB ' 8I2 '#B? 'EB?'I?;< ;8>'

E ;'K; I =# '#B?I'EB?= ;'@ <'#?'#B ' < #L

=A4 #?' K ;'#? #B ' #?C= ' D #E F# <F '#B '

#C =#>' AB#' >'?I' >' = # =#' = '#?' ## = '#B '

* '; #C;= '#?' EB # K# =' >@ 'B 'E; ## ='#?'

#B '&;8 ' B <D ;4 = '#B # #B >' # = 'E #B?C#

#B ' ??;' K;?> =A' ='#B ' < =' #>< '#B # #B '

&;8 'D 'I @C; 8>' = '@@?I 8>'" K '%B '&# # '

? '8 " E > '; NC ; '>?E'#?'K;?I @C# '#B 'I?;< ;'

?; ;'A ='I?;'#B ' < ;@B'?I'>?C;'; A < =# =#?9

$>I 4 EB ;'>?E' ;'#?'@?;; K?= 'E #B'#B '&;8 '

?I'0 =' ? E 88#B #= #B ;'?I'>?C;'#E?'; A < =# '

=@?< < ? '#B '?#B ;'=';8 # ?=#'#B ;'NC ;'# ;

% &' ?< < ## 'B ' 88; '?; ; '(' #; @"'

C;; >'; @ ;'#?' A? 'IC;'#BE #B'#?' (# ;8 =A' = '

#?'# " '#;>' 88 B?E'#?' 88 #B ' < 88 #B #E '8 '

CK' I?;' # A ; I?=' #?' #B ' D # 88' =' = '#B '

& # # 'B '#B ' >'; ; ' B <'E #B' >@ '?I'

8 # == =# ?'? 88 O C ;'#?'@ 88 I?;'IC@B'#; I9'

< =' 'C= ;'I# = 'D # ='#B '#K8 @ 4 = '# " ' = '

&I# < # '?I'#B '&FK =II'EB @B' E 88 D ' = @ II >'

I@it' < " =A'#B ';' K ; # ?= ' E #B ='#B '@ #8 ' < =L

?= ' ='>?C;'8 ## ;

% &' &' # # ' #B =" I ## *=' ; A ; ' #B # ?;'

A = ; 86' 71 >'B ' 2 ; ## =' FK; I 8>'#?' #B '#KC;L

K? 4 #B #'#B K<'" ?I' (# ;8 =A' D ' =# ; 8>' " K '

= 'B = 'I?;'#B 'C ' ?I'#B 'I?;@ 4 EB @B' @ =' D '

@?= # ?='#B ' < ' 'EB @B' 8 'CK'I?;'#B 'CI '

?I'#B # A ; ?=' ?;' =>'?#B ;' < A W = '#B ;4 = '

?I' EB # > ; 'A;?C#B' #B ' < @@?; =A'

#?'#B '@?= # ?=' ='EB @B'B ' B 88'I = '#B '*(' < 884

,

!! =A8 #?C= K ;!?= ! #8> NC 8 ! !?;#B # =
B =A!?;#B ; 8> ; D>A?= D = =L
#;C # #B ;E #B %B ;!?;#B < # =A?!& L
+ ? B ; D> A = A; =# !C K?E ;E ;L
; = = @?<< ! ?= #?B < = ?#B ; = B
= < X!?;EB?<B B 8 D =!E ; D8 %?CK8 !#
= ; @ #B !?; # ;< (CKK8>4 !;?< '
= !#< ;>#B B>; = DC;AB 8> D8 = K >L
< =# #B ;?! = = 8 " < == ;4 #B < # =A
?!& # # + ? B ; D> C#B?; W = <K?E ;#B
 J < E 8 #?CK8 !# = ; @ #B #NC ;L
; &F@>! 4 EB @B 8 " E > C = K > D8
 # #B # ;< ?! 2 B #!?= >4 !;?< #B # @" L
< = = ?#B ; 8> D8 = K >< =# ?! #B <
E #B /?E ;#?#B J < E 8 =?# ?=8>#?
CK8 !# = ; @ #B !?; # ;< CKK8> =
NC ;# ; &F@>! 4 B?# 8 " E > ' D>A?= ; #
C !?;K; @ =A # ;< = NC ;# ; 4 = =
#>< @?< =A !;?< 88 = C= ;> #B B>;
DC;AB # @" < = = ?#B ; 8> D8 = K >< =#
#B ;?!4 = CK?= ; @ K# ?!#B # ;< CKK8>
 = NC ;# ; F > = D>A?= ; # #B ;?! =
B 88?; = K ;# #?A; =# @NC ## =@ = @B ;A
#B ;!?;4 EB @B ; B ; D> @8 ; #?D C!! @ =#
#?#B ; @ ; 4 = != D #?@B ;A =
KC;!C !?;#B < Q NC ;# ;CK?= #B ! @ =#
8> D8 = K >< =# #B ;?!4 = #? ' 88?#B ;&F L
@C# ?= = @ ! ;> !?;#B <?; !! @#C 88 = K >
*=D; =A =A ?!#B < @?=!?;< #?#B !?; @#

?!#B < # =A?!#B & # # = =# #B CKK8> =
@# ?!/ ;8 < =# @?=@ ;= =A #B &F@>! / ;? > 9
=A 8E > 8 " # B ; D>K;? > #B # #B
 J < E 8 D>B @@ K# # ?= B ; ?!D L
@?< B?C= = ?B8 A #?< " C # @?<K#
; @"?= =A = K >< =# ?! 88 B =#;?< ! ?=
B D> ;#C ?!#B B @?<< ! ?=XEB @B #?
@?=# =C > = EB 88 # B ; @ 88 D>#B = A`
#?C@B B 88 B =#;C # !?;#B #>< E #B
#B < = A < =# ?!#B KCD8 @" ; =C 4 !!C;#B
?!EB @B CKK8> = F@>! #B J < E 8
 #? =!E ; = K > C@B E 9! =# = K; @ K#
 B 88 B KK = !;?< #>< #? #>< #? D ; E =
CK?= B <4 #?E ; #B K >< =# ?!#B !!?;@ =
A ; !?= 88; ; 4 ?;#?D ; ?;?#B ;
*=@ =# ; 8 # =A #B ;C=#? = #?#B < = A L
< =# ?!#B) ? ;=< =# (A= D E ;; = =
 = < ?!#B < # =A?!& # # 4 D>#B + C"
?! < 8#?= #B ; / ; =#

% & < ! 8 ## ;C= ;E; ## = ; @# #? KL
# = ?C=A @?<< = ; ?! #B # @B K ;#
 =# =#?#B B>; ?! ;A>88

% & @?=# =# ?! >?C;8 ## ;#? ? '?= 88 8!?C;4 0 ## ; Q
E #B ?< K;?K? 88 ?!! ; = >?C;= < 4 ; 8 # 9 ;< Q@
=A #?#B K @ ?! ;A>88 = 1 =#>; E ; *<9
K ;# #?#B @?<< ## > # ; >8 B?; ; #B 0 &1 %# 2
 < #?D ; A =#B > = #B < # =A?!#B
& # # 4 = @@?; =A8>#B & # # =A @?=9

; ;@?=L
@ ;= =A#B
& ;8 ?!
/ ;#B

?=C=!8 !?=
#?J <
 !E 8 !?;
CK8 !# =A
#B !?C;
<?= #8
!CKK8> <9
K?! D>#B
 &!# # =
 NC ;# ;
 F@>!

&‖ % / # # ?= K! ! =# #?#B & # # D>
 > ?C=# ! ?!/ ;#B (B E =A#B #EB ;J <
& ;8 ?!/ ;#B B ;BC D = D =A K; !?= ; =#B
@ !#8 ?!(# ;8 =A4 = #B @?<< = =A?#! @ ;B 9
=A KK?>=# @ =# = 88 #?# > =#B ;?C< E #B
B <4 EB @B =?# ?=8>C= ! #?#B & ;8 4B
#B ; D>D =A *<K !;?< ,-dK; # ?# ?=4
8 K = ?#B ;= @ ! ;> @ ?<? # ?= 4 DC# 8!?
? =?#B =A @?=#; DC# #?#B <?; @C; " K =A
#B & ;8 =@C!#? = #B ;!?;@; =A
#B # #B & # # E?8 A# =# E ;; = # #B ?<L
< = =A ?!! @ ; ?!#B @ !#8 #?; <? #B
@ =# B !;? K " K =A AC ; = #B & ;8
 B <D ;4 = #? KK?>=# #B <#? # = E #B?C#
#B ??;4 EB @B E 88 B 8 !! @#C 86!?;B @C!#?
 #B >E ; E #B = #B ;?C< 4 EB @B K # ?=
D =A B ; = @?= ; %B < # =A ?!#B
& # # ? ?; = #B @?<< = =A ?!! @ ; = #B
@ #8 ?!(# ;8 =A #?; <? #B @ =# = 88 !;?<
" K =A AC ; = #B & ;8 ?!/ ;#B @B <D ;4
= #?; ;#B <#? # = E #B?C# #B ??;4 K;?9
> =A #B & ;8 D " K @8?! K; !?= ;4
C= ; @C; @C!#? = AC ; 4 (=A #B K # L
# ?= ; =?# #?D 88?E =>! ; ; @@ ! #?B <

2 & (#B < # =A ?!#B & # # ?!#B
1 =A ?<D>#B ; @# ?!#B # #B dSV7- + >
?! K;>88 8 # K #4 8 *<K? = # ;< ?;!?C;
<?= #B CKK8>K > D8 # #B # ;< ?! 2 B #!?=9
>=?E 8 # K # &F# = =A #?#E =#>!?C;#B?E9
= K?C= # ;8 = 4 ?;#E?BC= ; = AB#>
AB# #B?E = K?C= (@?# 4 CK?= #B ; 86
B>; = DC;AB ?!#B 1 =A ?< %?D ; !
=#B < E > = < == ;4 = K > B #B <
@@?; =A #?#B ; ; F K;?K?;# ?= @?=# = =
#B @# ?!/ ;8 < =# ==? AB#>!> !?;
!; > =A #B @B ;A = &FK =! ?!#B A? ;=L
< =# ?!#B 1 =A ?< = #B C=@#C; 4 #B
 @# ?!#B < # =A ?!#B & # # ?!#B #
!?;! = # 8! # <?; 8 =#B K;?K?;# 4 = #B
 < # =A ?!& # # @?= ; =A # #?B =@@ !9
; = ; NC ! # !?;#B A?? ?!#B KCD8 @" ;L
@ 4 #B # ?< ! ## = NC 8 ! K ;!?= D =L
#;C # !?;CK8 !# =A = ; @ =A ?!#B
CKK8>4 = #B >B =A FK ; =@ ?! = ; E
K? =A #;C # = @?=! =@ =J < E 8 ?!

; ' ?!' #B <' %B >' ? ' KK;? ' ?!' #B ' #' K = ' @?C; A ' = ' @?= C@#' EB ;E #B' >?E' B ' B #B ;#?' < = A ' #B #' !! ; 4' = ' E 88' =?#' ! 88' #?' A ' >?E' 88' K?! D8 ' =@?C; A < =#4' #?' !8/ @9 #CR 5' EB #' >?E' B ' ?' C@@ ! !C ' >' D AC=' = ' =' ?; ;' #B ;#?' %B >' +? ' E ;; = ' Q' C#B?; W ' >?E' =' #B ;' = < '#?' A; =#' ! ' @?= C@#' = 'K;?# @# ?=' #?' 88' !C@B' B ; #?; ' ?;' #B ;' # == =# ' =' 1 =#>; ' = ' ;A>8 B>; ' EB?' B =A' KK ; ' =' ;< ' A = #' >?E4' ?;' ?#B ;E > ' #C;D ' =. ' KCD8 @"' K @ ' ; '=?E' E 88 =A' #?' CD< ##' = 'D B '#B <L 8 ' C#>!C ' >' C= ;' #B ' K; ! =#' A? ;=< =#' =' #>< ' @?< =A' #?' #B ' = '#B ' 'B ; #?; ' < >' ; L K ;' #?' & =DC;AB' = ' @?<K ;' D !?;' #B ' & # # ' ?;' B @B' ' B 88' D ' *<K8?> 'D>' #B ;' # ' =' #B ' A? ;=< =#' #B ;' #?' A '! ; ;' ! C; =@ ' ?!' #B ;' A?? ' D B ?C;4' $;? > =A' E > '#B ' ' B ; #?; ' B 88' @?< ' =#?' & =DC;AB' !?;' #B #' !! @# D #E F#' = 'J '! !# <' >' ?!' JC= '= F '%B >' ? ' 8 " E > 'E ;; = ' = ' C#B?; W ' >?E' #?' KC##' #B ' 8 = ' #B ' B ; #?; 4' EB?' B =A' KK ; ' =' ;< ' B 88' @?=# =C '#B ;' ?KK? # ?=' #?' #B 'A? ;=L < =#4' ?;' ; !C ' #?' @?< ' =' # ' & =DC;AB4' = ' #B ;' A '!! ; ;' =@ ' ?!' #B ;' A?? ' D B ?C;' !?;' #B ' !C#C; 4' C= ;' !C@B' < 8 # ;>' &F C# ?= ' ' >?E' B 88' #B ="' ! ##4' = ' #B >' ?; ;' >?E!C;#B9' E #B' #?' ;< ' !C@B' B ; #?; ' = ' #B ;' !?88?E ; ' 'D =A' ; NC ; 'D>' >?E4' B 88' =?#' A '#B ;' @?=9' @C;; =@ ' !?;' #8 =A' EC' K @ ' ?!' #B ' @?C=#; ' = ' #B #' >?E' 8 # ' #B <' *< < # 8>' %?' #B ' = '#B >' < >' D 'KC= B ' @@?; =A' #?' #B ;' AC ' #4' = ' !?;' #B ' D ## ;' #; = =A' ?!' >?C;' = E' ; ' < =' %B ' & # # ' B ' ; ; '8 [?(') ; B <' =' #B ' 0?; ' ;A => '; A < =#4' #?' = '>?E' #E =#>' F' ?!' #B ' <? #' FK ;#' < =' =' B ' ?8 '@?<K =>' ' >?E' B 88' #B ="' ! ##' #?' K?! '?!' #B <7 *= # '?!' #B ' = 8 ; ' >? 2' ; 4' #B ;' ' = ' ?; ;' !?;' = =A' #?' >?E' D>' #B ! '=?# =' #E?' BC= ; 'K #;?=9' # B '!?;' <C " ## '?C#?!' #B '< A C ' #' (# ;8 =A4' = ' #E?' BC= ; ' AA?= #' ; ' ?; ; '#?' D ' B ; E #B' =#' >?E' C=# 88' <?; '?!' #B <'@ =' D 'B ' = '#B '@?<< ## 'B '# " =' @ ; '#?' @ C 'J?B=' ?@B; = ' @?88 @#?;' ?!' =!; E' K;? > ' < 88' !?;' #B ' CD! # =@ ' ?!' #B #' # @B< =#' #?' D ' =#' ' >?E' B 88' B 4' ?@@ ! ?=' #?' @ 88' !?;' #' = '#B ' & # # 'E 88' ?<< ##' =?#B =A' #B #' < >' D '= @ ! ;' !?;' #B ' =@?C; A < =#' ?!' >?E' = ' #B?! ' C= ;' >?C;' ?<< = ' =' #B #' ! ; @ 4' 2 B @B' =' #B ;' = < ' ' ! A= ! '#?' >?E' D>

@' CD @; D #C;' *0% ' / 5

% &' & # # ' ?; = ' (' J?B=' ' ' K; =#' /;?9' #' ?!' & =DC;AB' #?' @ C! ' + 8> ;' #E?' BC= ; ' ?!' #B ' AA?= #' K;? > 'D ' B <' =' #B ' #?C= 4' D>' ?; ;' ?!' #B ' @?<< ## ' ?!' & # # 4' #?' 8 7 ?8' 8?= 88' / #; @"') ; B < '?;' B ' ?; ;' !?;' #B 'C! ' ?!' #B ' # #@B< =#' C= ;' #B ' << = ' ?!' K# =' ?C=A' =' 1 =#>; 4' # " =A' ; @ K#' !;?<' #B? 'EB?' B 88' ; @ '#B <' !?;' #B 'C ' D? 'E; ## =

% &' < ## =A' ?!' & # # ' ? ' B ; D>' ?; =' #BQ' 1 K ; ' ?!' #B ' ;< ' B' (# ;8 =A' @ !#8 '#?' 8> ;' #?' 8 7 ?(') ; B < ' =' #B ' 0?; ' ;A = ' A L < =#' ?;' B ' ?; ;' #E?' BC= ; ' K #;?=# #B ' !?;' <C8" # ' !?;' #B ' C! ' ?!' #B ' # #@B< =#' C= ;4#B ' @?<< = ' ?!' K# =' ?C=A' =' 1 =#>; ' # " =A' ; @ K#' !;?<' #B?! ' EB?' B ('D ' ?; ; '#?' ; @ ' #B ' < '!?;' #B 'C! ' D? 'E; ## =

%' !?;' ' = E' < # =A' ?!' #B ' ?<< !9' ?= ; ' ?!' (CKK8>' =' !?< '*B>;

% &' # =A' ?!' #B '& # # 4' C= ;!8 = =A' #B #' =' ; (' B>; ' ?!' #B ' 1 =A ?< ' #B ;' '=?#' < #' 'NC?;C<' ?!' #B ' @?<< ! ?= ; ' !?;' #B ' CKL K8>' CK?=' #B ' !?C;# =#B' ?!' #B ' = # =#4' EB @B' E ' KK?>=# '#?' D '#B ' ! ; #' > #' ?!' < # =A4' EB ;B>' #B 'EB?' E ; ' @?= = ' '=?#' K;?@ ' =' #B #' !! ;' @?< ## ' #?' #B <4' %! ;!?;' #B ' & # # ' ? ' ?; =' = '; NC ; '#B ' @?<< 8 ?= ; ' ?!' CKK8>' =' #B ' B>; ' #?' < #' #' #B ' B 'DC#AB ' ?!' #B ' ; K @# ' B>; 'CK?=' #B ' ! ; #' #BC; >' ?!' JC= ' = @#' ' #B >' E 88' D ' =!E # D8 ' @<' #B ;' K ; 86' = ' #' 'B ; D>' ; ' #B #' #D ! ' @(< ! ?= ; ' EB?' B 88' < #' #B ' ' >' B 88' D ' 'NC?;C<7' = '#B #' #B >' < >' K;?@ ' = ' ? 'EB #' 'K; 9' !@;> 'D>' #B ' @#' ?!' #B ' ! # ' @"8>" ' ' !' #B 9' < ?;' K ;#' ?!' #B '=?< C #' D>' #B ' @#' E ; 'K; L ! =#' = ' KK?>=# 'D>' #B ' B ; !! ' @8 ;" ' =' #B ' !?; ' B>; ' #?' =# < # ' #B ' ' > #' ?!' < # =A' #?' #B ' ; 88' @?<< ! ?= ; ' #B #' #B >' < >4' KC=@#C 88>' " K' #B ' < ' = ' #B ' & # # ' D =A' =!?;< ' #B #' #B ' ?< ! ?= ; ' ?!' (CKK8>' =' #B ' B>; ' ?!' =A#?C=4' = ' ?< ' ?#B #' B>; ' EB?' < ##' CK?=' #B ' >' KK?>=# 'D>' #B ' @#4' 'K;?@ ' 8D #' #B >' E ; '=?#' 'NC?;C= '%B ' & # # ' ? ' K\ '#B ;?!' = ' 8 ; '#B #' EB #' E ' ?= ' D>' #B <' EB?' < ##' B 88' D ' 8 ' 8 ' ' !' #B '!C88' NC?;C<' KK? =# 'D>' #B '9 @#' ?!' #B ' & # # ' B ' < ##' = '@?= =

%' @?=# = =A' '= E' ?< = # ?=' ?!' ?<L < ! ?= ; ' !?;' #B ' (CKK8>' =' #B ' *B>; ' ?!' D ; =

) * ' # =A' ?!' #B ' & # # ' ?= ; =A' #B #' V' EB =' #B ' @#' E 'K #' !?;' ; =A' ?!' !?C;' <?= #B ' CKK8>' #B ;' E ' =?' 8 #' A =' =' D>' #B ' ?<< L ?= ; ' !?;' #B ' B>; ' ?!' D ; =' ?!' K ;!?= '#?' B ' @?<< ! ?= ; ' !?;' #B ' CKK8>' =' #B #' B`;; 4' EB @B' '?@@ ! ?=' < # " ' =' #B ' =?< = # ?=' @?=# = ' =' #B ' @#4' ?< ' ?!' #B ' K ;!?= ' =?< = #' D =A' ' = '?#B ; '=?#' NC 8 ! ' @@?; =A' #?' 8 E4' = ' #B #' #B '=C<D ;' ?!' #B '=?< = #' D =A' A; #' %B ' < ?;' K ;#4' EB @B' D>' #B ' @#' ' ; ' #?' B ' 'NC?;C<' #' #B ' ! ; #' > #' ?!' < # =A' =?#' B =A' < ##4' #B 'EB?' E ; ' < ##' =?#' K;?@ '%B ;9' 4' !?;' #B '& # # ' ? ' =?< = #' = ' KK?>=#' #B 'K ;9

U

=)*'

=K '‘D ‘ =!E ; D8 ‘ ^<‘ #B ;‘ K ; 8 ‘ #D >‘ + 9‘
@8 ;‘ #B #‘ #B ‘ ?!‘ #B ‘ @?<< ! ?= ; ‘ EB?‘ B 88‘
< #8‘ #B ‘ ‘ + >‘ B 88‘ D ‘ ‘NC?;C<‘ E #B‘ K?E ;‘
#?‘ #B <‘ #?‘= < ‘ #B ;‘ ?C= ‘ ?= = ;4‘ = ‘ #?‘ K;?L
@ ‘ @?=!?;< ‘ #?‘ #B ‘ # =?;‘ ?!‘ #B ‘ ‘ @#4‘ (@"8>" ‘
‘ !‘ #B >‘ B ‘ D =‘ 88‘ =?< = #‘ FK; >‘ #! ; =5‘
= ‘ KK?>=# ‘ K ‘ B ; !! ‘ @8 ;"‘ ?!‘ #B ‘ ‘ B>; ‘ #? ‘
=# < #‘ #B ‘ !?;8 ‘ +> #‘ ?!‘ < # =A‘ #?‘ #B ‘ > ; ‘
?< 8 ?= ; ‘ D? ‘ = < ‘ #B >‘ < >‘ KC=@#C 88>‘
" K‘ K ‘ 8 <

%‘ @?=@ ;= =A‘ #B ‘ & ;8 ‘ ;8@B ‘ = ‘
#B ‘ ## ;‘ ?!‘ $?;D ‘

% &‘ # =A‘ ?!‘ & # # ‘ @?= ; =A‘ #B #‘ #B ;‘ ‘
E ‘ ‘ ?<< ! ?= ‘ A; =# ‘ D>‘ #B ;‘ @?<< ## ‘ #?‘
#B ‘ & ;8 ‘ ?!‘ ; 8B 88‘ = ‘ #B ‘ 0?; ‘ 1 #B‘ B ‘
!?= ‘ #?‘ "‘ ?C#‘ = ‘ ?<< = ‘ 88‘ #B ‘ B ; #?; ‘ = ‘
4!! =@ B8 ‘ < =‘ ?!‘ K ‘ B>; ‘ ?!‘ 1 =@ ; = ‘ = ‘ #B #‘
K ;#4‘ ?!‘ #B ‘ B>; ‘ ?!‘ D ; =‘ @ 88 ‘ ; 8B 88 ‘
K ;#‘ #?‘ D ‘ ; ‘ ‘ ?;‘) = ; 8 ‘ 1 >‘ B?C8 ‘
‘ @ C ‘ !?;‘ ?KK?! =A‘ =>‘ K ;!?= ‘ #B #‘ B?C8 ‘
#C;D‘ #B ‘ K @ ‘ = ‘ #B ‘ 8>" ‘ @?<< ! ?= ‘ E ‘
A; =# ‘ #?‘ #B ‘ < # ;‘ ?!‘ !!?;D ‘ #?‘ 88‘ ?C#‘ = ‘
?<< = ‘ #B? ‘ ?!‘ K K ;#‘ ?!‘ #B ‘ B>; ‘ ?!‘ D ;L
=‘ @ 88 ‘ &;;?88 ‘ K ;#‘ #B ;?! ‘ = ‘ #‘ D =A‘ FL
K =#‘ !?;‘ #B ‘ KCB8 @"‘ ; @ ‘ =‘ #B ‘ C=@#C; 4‘
#B #‘ #B ‘ D?C= ‘ 88?@ # ‘ D>‘ #B ‘ !?; ‘ ?<< 9‘

?= ‘ B?C8 ‘ D ‘ 8# ; 4‘ %B ;!?;‘ #B ‘ & # # ‘ +? ‘
; = ‘ #B ‘ & ;8 ‘ ?!‘ ; 8B 88‘ = ‘ 0?; ‘ 1 #B‘ #‘
#B ‘#>< ‘#?‘# " ‘C= ;‘ #B ;‘ ?<< = ‘ #B ‘!! =@ B8 ‘
< =‘ =‘ &;;?88 ‘ K ;#‘ ?!‘ #B ‘ B>; ‘ ?!‘ D ; =4‘ = ‘
#B ‘ < # ;‘ ?!‘ !!?;D ‘ #?‘ # " ‘ C= ;‘ B ‘ ?<< = ‘
#B ‘ ?!‘ #B ‘ B>; ‘ ?!‘ 1 =@ ; =‘ = ‘ B8 ; B ' ‘
K ;#‘ ?!‘ #B ‘ B>; ‘ ?!‘ D ; =4‘ Q‘ #B #‘ #B >‘ < " ‘
=# < # ?= ‘ B ; ?!‘ # ‘ #B ‘ K ;!?= ‘ @?=@ ;= ‘ =‘
#B ‘ ‘ ; K @# ‘ B?C= 4‘ #B #‘ #B >‘ < >‘ D ‘ =‘
; = ‘ CK?=‘ ;# < =#‘ #?‘ D ‘ A =‘ #?‘ #B <‘
D>‘ #B ‘ ‘ & ;8 ‘ ?!‘ B8 ; B 88‘ = ‘ ‘ ?!‘ !!?;D ‘
?=!?;< ‘ #?‘ #B ‘ !?;! ‘ ?<< ! ?= ‘ A; =# ‘ #?‘
#B <4‘ EB @B‘ #B ‘ & # # ‘ @8 ; ‘ #?‘ D ‘ !! @#C 88‘
= ‘ #?‘ @?=# =C ‘ 8 ‘ &F@ K#‘ =‘ !C ‘ ! ;;‘ ‘ #B ‘
< ‘ ; ‘ 8# ; ‘D>‘ #B ‘ @#

$?88?E ‘ #B ‘ 8 ## ;‘ ; @#‘ #?‘ #B ‘ < # ;‘ ?!‘ !!?;D

(;
% ‘ >?C;‘ 8 ## ; ‘ ?!‘ #B ‘ ! !# =#B‘ = # =#‘ E ; ‘
@?<<C= @ # ‘ #?‘ #B ‘ & # # 4‘ = ‘ =‘ =!E ;‘ #?‘ D?#B‘
?!‘ #B <‘ #B >‘ B ‘ C#B?; W ‘ #B ‘ K ;!?= ‘ = < ‘
=‘ #B ‘ 8 #‘ =#‘ D>‘ >?E4‘ #?‘ @#‘ ‘ ?<< ! ?= ; ‘ !?;‘
#B ‘ (CKK8>‘ =‘ #B #‘ B>; 4‘ =‘ K8 @ ‘ ?!‘ #B ‘ = < ‘
D>‘ #B ‘ !?;< ;‘ @#4‘ EB ; = =#‘ >?E‘ B ‘ = ‘ @#‘
=@8? 4‘ = ‘ 8!?‘ #B ‘ & # # ‘ B ‘ ?; ; ‘ ‘ >?E‘
>; ‘ #B #‘ >?E‘ B ‘ ‘ @?<< ! ?=‘ #?‘ @?<< = ‘
#B ‘ ! =@ D8 ‘ < =‘ = [#B ‘ B>; ‘ ?!‘ 1 =@ 9 = ‘ = ‘
B8 ; B ' ‘ K ;#‘ ?!‘ B ; = B>; ‘ EB ; = =#‘ >?E‘
B ‘ =?#B ;‘ @#‘ B ; E #B‘ =# ‘ = ‘ =A‘ >?E‘
B ‘ # " =‘ CK‘ ?‘ < =>‘ ?!‘ #B ‘B?;! ‘ 8 ‘ =‘ #B

%6,%Q-@
-33-+‘ ! ‘
31-‘ 6323-,‘
3"31- 263U@"‘
+,‘66"+/-,

+ & & + ' #B # ' D ! ' # " =' ?C# ?!' #B ' : ' ;
$; =@B' B K' D ' A =' !?;' K;? > =A' ?!' #B ' #C='
!; AA?## 4' = '#B #' 'NC =# #>'?!' " ##D 'K;? > 9'
'!?;'#B <'*<< # 8>' #'#B ' # C= ' ?!')8 A?E

% & ## =A' ?!' #B ' & # # ' ? ' KK?>=#' #B ' ! @#@?=9'
@?<< ## '!?;<' ;8>'=?< = # 'D>'#B <'!?7 @C; 9' ? !## '
=A' #B ' K @ ' ?!' #B ' 1 =A ?< ' #?' @?=#=C ' = !?;' @C; =A'
KK?>=#' #B .' ! ' # > #' ?!' < # =A'#?' D '#?<?;9'
.?E' # # =' '@8?@"' ='#B '!?; =??=

+ & & + ' #B # ' D :; 86 ?!' K?C :'!E #B' D 88 ! ; ';Q'
= ' < #@B' @?=!?;<' D ' A =' #?' #B ' !@?C=#' ?!'
1 =<C .' ?C#' ?!' #B ' #?;' ?!' <C= # ?=' ! =#' #?'
2 A#?C='?;'#?' B '?; .'!?;'#B ' C '?!' B ' ; A9' 7 77'
< =#

% &'< ## =A'?!'& # # ' ?C;= '#?'$;> .'
= F#' #' =' '@8?@"' ='#B '!?; =??=

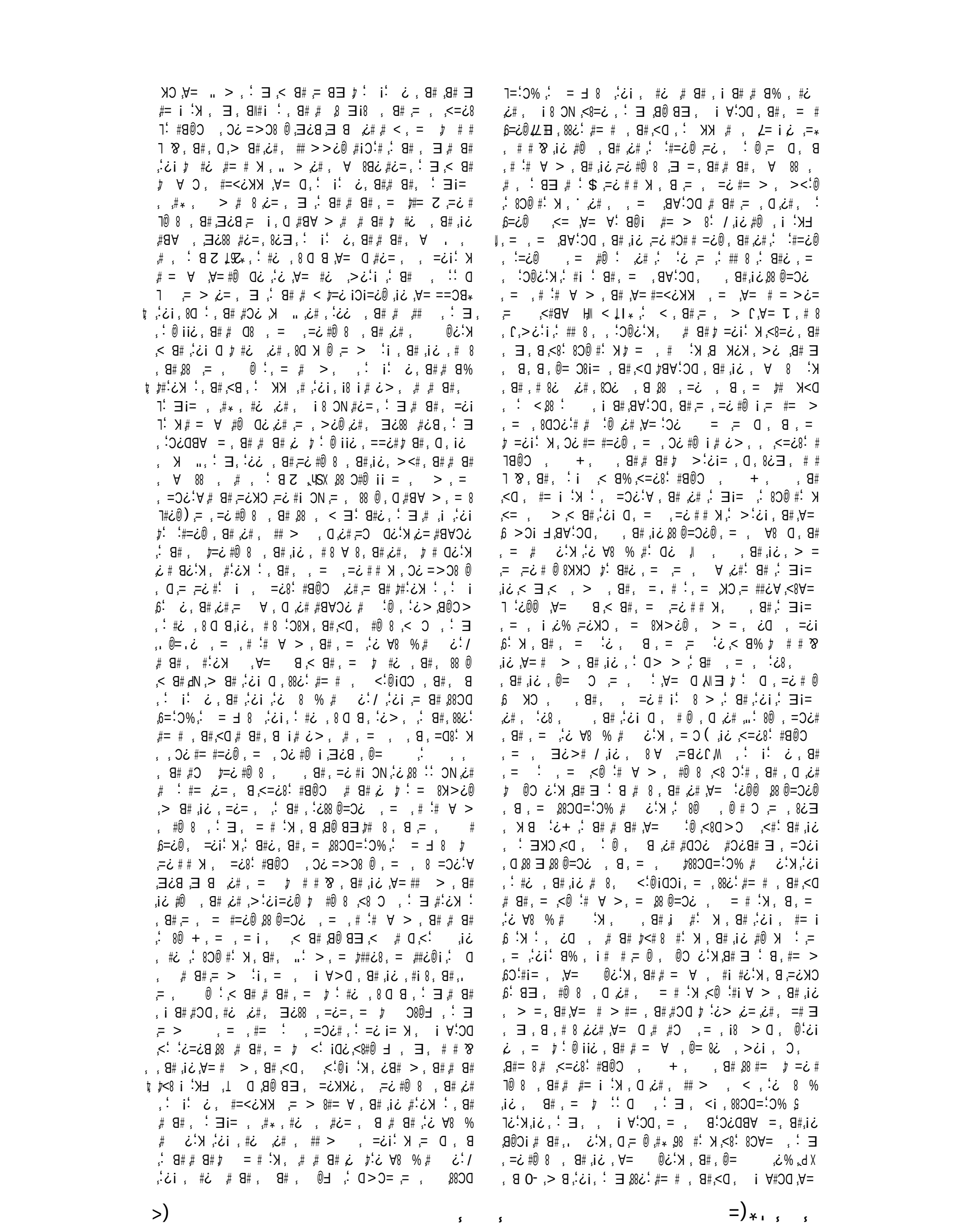
&+* ') 'SUH' ' G

% &' O?;' /; =#' B =A' *=# < # ' #?' #B ' #
& # # '#B #' B 'B ' ; @ ' 8 ## ; '!;?<' 8 # =9'
= =#' ?88?= 88 O E ' = '#B ' 8 ; '?!' 8 ' @ ;'#9'
! =A' #B ' = E ' ?!' #B ' & ;8 ' ?!' ' ' #B' = '
#B #' #B ' K; !?= : ' EB?' E ; ?; ; '#?' D ' =#' =' '
!;?<' (#;8=A' 2 ; ' @?< '#?' & =DC;AB4' #B ' 8 ## ;'
C= .' E; ## =' 2 ' ?; ; '#?' D ' =#' #?' #B ' (
# == =# ?88?= 889

(;
' O ## ;'#?' < 'A =A' = ' @@?C=#' ?!' #B ' %6,%Q-'
#B' ?!' #B ' & ;8 ' ?!' .'-'*' @?<<C= @ # ' #B ' ' E[7 ?9
>' #?' #B ' & # # ' = ' #B >' C#B?;' W ' = ' ; 9' H 'O E '
NC : '>?E'#?' # " ' CK?=' >?2'#B ' @?<< = ' ?!' #B '
A ; !?= ' ='#B ' #?C= ' = ' @ !#8 ' ?!' (#;8=A' = '#?'
" ' (K @ 88 @ . ' ?!' #B ' < 4 C=# 88 ! . .'?; ' .
B 'A =' #B ; =# = '#B ' & # # ' ? 'A ' ?; ' ,
#?' >?E' #?' 8>> ,' #?' / #:' @"' <KD 88 ?= < '
. ' #?' #B ' & ;8 ' ?!' ·A>8 ' ; A < =#4 CK?=' B '
. @ K#?= ' :: 88 ?!' K?E ,' = '?= ' @B # ?!' 88
E #B' < #@B' @?=!?;< ' !?;'#B 'C! ' ?!' #B # ; A< =#4
#B ' D ' E ;; = ' ?!' #B ' & # # ' ' A= ! ' #?' >?C'
>'

9

% &' ## =A' ?!' #B ' & # # ' ? ' ?; = ' #B #'
#B ' C#@B ' ?!' C@@8 CAB' = 'B ;' ! 88 ' =' #B '
!> ' K ; B ' ?!' & " 88 ? ' KC##' ?C#B B?:! ('
EB @B' #B >' : ' 8> D8 ' #?' ?C#; @"4 E #B' #B ' B>;'
?!' +C<!:' ' #?' < " ' CK' #B ' #;?CK'C= ,' #B ' ?<L
< = ' ?!' #B ' & ;8 ' ?!' == = 8 ' =?#E #B # = =A'
#B # D>' = ' @# ?!' / ;8 < =# ' ==?' * ' ^7
=' #E?4 #B ' !> ' K ; B ' E . ' ?>= '
!;?<' #B ' B>; ' ?!' +C<!; ' = ' == F ' #?' #B '
B>; ' ?!' ?FDC;AB4 *=' ; K @# #B ' 8 > ' ?; . '
#?' D ; ' @?=!?;< ' #?' #B 'K;?K?;# ?= ' @?=# = '
=' #B ' @# ?!' / ;8 < =# *' ' F#>' #B; 4 #'
EB @B' #><< ' #B ' ' !> ' K ; B ' E . ' ' K ;'#'
?!' #B ' B>, ' ?!' +C<!; ' = ' 8> D8 ' #?' KCD8 @#'
DC; = ' = ' ?C#; @"' E #B' #B ' < ' *#' ' 889
E > ' B ; D>' @8 ; ' #B # #B ' B>, ' ?!' ?FL
DC;AB' ' 8> D8 ' #?' KC# ?C# #B ;' !C88' =C<D ;' ?!'
B?;! ' @?=!?;< ' #?' #B ' @# ?!' #B ' & # #



$ 00 2 &(#B = < 12 C@B H8 ; *<K?E ; #? ; E ?C# #B ! =@ B8 < !#

!!?;#B & #/ ;# ?!$>!

0 ; ?! 8@?< 4 8 ; ?!/ # B 88 4 8 ; ?! 1 =7
" '4 8 ; ?!) D8 #?C= >?P4 8 ; ?! ! =A; >4
2 88 < 8!?C;?!0 ;= #B = 8 (K =
?!0 #B 88 =4 8 ; ?!0 EB 884 8 ; ?!0 ;A?4 8 ;
?!& # ; 4 ?D ;# 8 88?! ;!" ; ?E4 8 ;
?! 1 <<?@"4 8 ; ?! ; #4 8 ; ?! 1 ;"#?C=4
8 ; (<!??; <4 8 ; ?! CAB#?=&8 ;
= >? 8 ; ?!) ; =A 8!?C;4 8 ; ?! =9
" 88?;?K 4 8 ; ?! =" 88?; 8 ; = >?
A '4 8 ; ?! C=A ?=4 8 ; ?! +? =4 8 ; ?!
#B ;=

!!?;#B 2 #/ ;# ?!$>!

(B ;8 8" #4 8 ; ?! = #; 4 8 ; ?!/ #9
8 ;4 2 < ?! C#8 B 884) ?! ; @"4 8 ; ?!
0 !? >?C=A ;4 (@?# ?! (K = ;! 8 8 ; ?!
0 E B #4 8?; ?88 884 0 8>?! 2 #NC ;# ;4 K7
;= ?! ; A#? =4 8 ; ?! 1 ;"= 4 8 ; ?!
;=?##4 ?E =?! ?; #?C=4 2 B>#?! ==?@B
>?C=A ;4 8 ; ?! &8 ;4 J < (" =?!
); =A 4 8 ; ?! ?A 4 >?! (#;C 4 /;? #
FE '8 ; ?! ;C=#?=8 ; ?! C@B# ;< ;

% &= < ?! C@B ; ?! #?; E ?C# #B ! =7
@ D8 #B =!;?<%?C=

$?;(7 = ; E

= ; E 8 ;"" =?!) 8 = #B K; =# 89
A $?; = #;C#B ; & # ; = 2 # ; = (89
; >" %B K; =# A #; # ?! = #;C#B ;
@ # ;4 $?; / ## =E < = ([* ?== = 4) D8 9
#?C= >?C=A ;4 K# = #@B ?= = K# =
??"4 $?;#B &8 4 = & ;8 ! ;;>4 %B?< ??"4
J < ;=4 ?D ;# ;= = + + <K # ;4
$?;#B #B 884 C@"B =4 & # ; = 2 # ;
2 < 4 2 < ?!)8 == #?C= 8A ?D ;#9
?= = 8A 0 = >4 $?; +> ;#4 + 2 '9
8 < ?= 4 $?; 1 ;" 8 = #B 0 ="#?C= 4 #B
K; =# < A #; # 4 $?;#B / #B B ?! 1 ;" 8 4
2 # ?= ?! +C= " ;4 $?; 1 =AB?;= #B K; =#
< A #; # $?; ;C=# 8 = 4 K ;=4 B %B?L
< ;=4 = 8 F = ;) 4 $?; *= ;" #B9
=A4 #B K; =# < A #; # $?; +C<! ;<8 = #B
K; =# < A #; # 4 $?; ?CK ;#B K; =# < A L
#; # 4 $?; C@B# ;<C@B# 4 #B 8 ; ?! = #B 8 ; ?! (#;C 4 $?; (#; < A8?4 #B 8 ; ?!
?;!#?C=4 $?; #B #?C= ?! 0 ! 8 J?B= 88
@B <D ;8 = #?; #B ?C=# ?! ?#B 4 $?; #B
#?C= ?! 1 =;?! (# < = ?! 8 =A 88 $?; ;9
=?@"4 #B 8 ; ?! ; @"

$ 00 2 (#B 8 # ?! #B #B # A?# ! ; 8?@" =
< C " # ?C# ?! #B @ #8 ?! & =DC;AB =
? <D ; [AB#> F !! ; # (#; = ; ?<L
K =>! !#> ?;J?B= 8 ;" @?<K =>! !#>4 1 =L
= #B 0C= K 8 # = =# ! !#>4 *=@B ;= ! !#>4

?!ʻ = ʻ <?= #8ʻ !# ;ʻ #B ʻ #ʻ B ; ?!4 = ʻ = ;ʻ #?ʻ ; #C;= ʻ#B ;#?4 = ʻ#B #ʻ B ʻ B 8ʻ =?# A? ʻ#?ʻ &=AL 8 = ʻ?;ʻ*; 8 =

ʻ %ʻ =ʻ ! ?;ʻ ?!ʻ #Bʻ *=B D # =# ʻ ?!ʻ #B ʻ %?C=ʻ ?!ʻ)8 !A?E

G ʻ &ʻ %ʻ #B ʻ CKK8 @ # ?=ʻ A =ʻ =ʻ = ʻ K; =# ʻ #?ʻ #B ʻ < # =Aʻ ?!ʻ#B ʻ& # # ʻD ʻ#B ʻ =B D # =# ʻ?!ʻ #B ʻ #?C= ʻ ?!ʻ)8 A?Eʻ B E =Aʻ #B #ʻ EB ; ʻ #B ʻ & # # ʻ E ; ʻ K8 ʻ D>ʻ #B ;ʻ @# #?ʻ KK?>=#ʻ 8ʻ #B ʻ ?> 'ʻ DC;;?E ʻ E #B =ʻ #B ʻ 1 =A ?< ʻ ?!ʻ (@?#8 = ʻ#?ʻ 8 @#ʻ #B ;ʻ < A #; 8 ʻ Q #?C= ʻ @?C=@ 8ʻ ?!ʻ = E4 D>ʻ#B ʻK? 'ʻ ?!ʻ 8ʻ#B ʻB D 8 ʻDC;A ! ʻ*=ʻ ; K @# ?!ʻ #B ʻ 8 # ʻ = ! ?= ʻ B #Bʻ D =ʻ CK?=ʻ#B ʻ ; AB# ?!ʻ 8 @# == 4 2 B @Bʻ 8 D ;# ʻ ?!ʻ &8 @# ?=ʻ ʻ #?ʻ #B ʻ #?C= ʻ ?!ʻ)8 A?Eʻ B #Bʻ D =ʻ B #B ;#?ʻ *=#9ʻ K ʻ = ʻ =Aʻ #ʻ B #Bʻ D =ʻ ?!ʻ 8 # ʻ#B ʻ ʻ @ 9ʻ #?< ʻ?!ʻ#B? ʻ< A #; 8 ʻ EB?ʻ ʻ KK; B = ʻ#B <L 8 ʻ#?ʻ D ʻ8 ʻ ! ʻ!;?<ʻ#B ʻ < A #; @ 4 *<< L # 8>ʻ D !?;ʻ#B ʻ @B 8< ʻ?;ʻ#>< ʻ?!ʻ #B ʻ&8 ?9ʻ # ?= ʻ#?ʻ A; =# K; @ K# ʻ = ʻD?= ʻ!?;ʻ A; # !?C< ʻ ?!ʻ <?= >ʻ #?ʻ EB?<ʻ #B >ʻ K8 4 D>ʻ 2 B @Bʻ #B # ?=@ ʻ!8?C; B =Aʻ K8 @ ʻ ʻ C## ;8>ʻ;C = ʻ = ʻ#B ;9ʻ !?;ʻ BC<D8>ʻ ; =Aʻ #B # #B ʻ B?=#E D8 ʻ & # # ʻ E?8 ʻ D ʻ K8 ʻ #?ʻ KK?>=# = ʻ ?; =ʻ #B # 8ʻ K; @ K# ʻ = ʻ D?= ʻ A; =# 4 ?;ʻ @# ʻ ?!ʻ @?C=@ ʻ < ʻD>ʻ#B ʻK; =# < A #; 8 ʻ = ʻ#?C= ʻ @?C=@ 8ʻ ?!ʻ)8 A?Eʻ =ʻ! ?C; ʻ?!ʻ =>ʻ ?!ʻ#B < 8 ʻ?;ʻ =>ʻ K ;!?= ʻ EB #!?< ;ʻ &F@ K# !?;ʻ K >< =# ?!ʻ #B ʻ KCD8 @# D# ʻ =@ ʻ#B ʻ # ?!ʻ#B ʻ!?; ʻ @# ?!ʻ#B ʻ & # # ʻ < >ʻ D ʻ ?> ʻ = ʻ =C884 F@ K# # D ʻ K9ʻ K;? =ʻ = ʻ 88?E ʻ D>ʻ#B ʻ !C ? =Aʻ < A #; 8 ʻ = ʻ @?C=@ 8-4 2 B @Bʻ CKK8 @ # ?=ʻ D =Aʻ ; ʻ =ʻ K; ! =@ ʻ?!ʻ#B ʻ ʻ < # =Aʻ?!ʻ & # # ʻ%B >ʻ & 9ʻ @8 ;ʻ#B # 8ʻ K; @ K# ʻ = ʻ D?= ʻA; =# 4 ?;ʻ @# ʻ?!ʻ @?C=@ 8ʻ < ʻD>ʻ#B ʻK; ! =# < A #; 8 ʻ = ʻ#?C= ʻ @?C=@ 8ʻ ?!ʻ)8 A?E4 *=ʻ ! ?C; ʻ ?!ʻ =>ʻ ?!ʻ #B <L 8 ʻ ?;ʻ =>ʻ?#B ;ʻ K ;!?= ʻ &F@ K# !?;ʻ K >< =# ?!ʻ#B 4KCD8 @# D# ʻ =@ ʻ#B ʻ # ?!ʻ #B ʻ @# ?!ʻ#B ʻ & # # ʻ ?; = =Aʻ = Eʻ 8 @# ?= ʻ ?!ʻ < A #; 8 ʻ =ʻ DC;AB ʻB>ʻK? 'ʻ ?!ʻ#B ʻB D 8 ʻDC;A ! ʻ%?ʻD ʻ ?> ʻ = ʻ=C '4 C=8 ʻ#B ʻ < ʻ B 8ʻ D ʻ KK;? =ʻD>ʻ#B ʻ C@@ =Aʻ < A #; 8 ʻ = ʻ#?C= ʻ ?C=@ 88

#B ʻK ;!?= ʻ !# ;ʻ= < ʻ +?ʻA; =# !C8ʻK?E ;ʻE ;9ʻ ; = ʻ = ʻ @?<< ! ?=ʻ #?ʻ ;@BD 8 ʻ K ;ʻ?!ʻ ?9ʻ NCB K8 4 = ʻJ < ʻ(# E ;# >?C=A ;ʻ?!ʻ ; ?;8 @Bʻ #?ʻ ; ʻ = ʻ @? ?@ # ʻ Yʻ ;< 4 #B ʻ =C<D ;ʻ #B; ʻ BC= ; ʻ < =ʻ ?;ʻ <?; 4 ?!ʻ #B ;ʻ ?C= 4 = ʻ C@Bʻ ?#B ;ʻ A =#8 < =ʻ = ʻ ?#B ; ʻ ?!ʻ #B ;ʻ = ABL D?C;B?? ʻ ?=ʻ D?#Bʻ > ʻ?!ʻ #B ʻ ʻ; ;ʻ?!ʻ$?;#B4 E B?ʻ ; ʻE 8ʻ !! @# ʻ#?ʻ #B ʻK; =# A? ;=< =#4 = ʻ< >ʻB ʻE 88 =Aʻ #?ʻ ?>= ʻQ @?=@C;ʻE #Bʻ#B <ʻ =ʻ#B ʻ ʻ ; @ 4 E #Bʻ K?E ;ʻ#?ʻ #B <ʻ#?ʻ <? 86ʻ #B ʻ ʻ#B; ʻ BC= ; ʻ ?;ʻ <?; ʻ < =ʻ =#?ʻ @?<L K = ʻ ?;ʻ ʻ ; A < =# = ʻ #?ʻ = < ʻ #B ;ʻ =! ; ?;ʻ ?!! @ ;ʻ = ʻ #?ʻ A; =# ?; < ! ?= ʻ @@?; =A8>ʻ = ʻ #B ;E #B4 ?;ʻE #Bʻ C@Bʻ =C<D ; ʻ ?!ʻ #B <ʻ ʻ B 'ʻD ʻ#B?CAB# !C! =# #?ʻ AC ; ʻ = ʻ ! @C; ʻ #B ʻ ʻ !??; 4 CK?=ʻ #B ʻ ; ;ʻ ?!ʻ $?;#Bʻ D? ʻ (# ;L 8 =A4 #B # =?= ʻD ʻ 88?E ʻ#?ʻ K ! ʻ #B ʻ ʻ !??; ʻ = ʻ ! ;; ʻ C# !C@Bʻ ʻ ; ʻ "=?C= ʻ #?ʻ D ʻ E 88ʻ !! @# ʻ #?ʻ #B ʻ A? ;=< =#4 ?;ʻ B ʻ K ! ʻ !;?<ʻ #B ʻ < A #; 8 ʻ ?;ʻ @?<< = =Aʻ ?!! @ ;ʻ EB ;ʻ #B >ʻ C 88ʻ = ʻ #?ʻ ! W ʻCK?=ʻ = ʻ ! @C; ʻ 88ʻ K !?= 4 EB?ʻ ; ʻ8> D8 ʻ #?ʻ#B ʻ C K # ?=ʻ ?!ʻ D =Aʻ ! !! @#9ʻ 4 ?;ʻ =ʻ ?KK? # ?=ʻ #?ʻ #B ʻA? ;=< =#4 ʻ 8 ?ʻ # ʻ AC ; ʻ = ʻ ! @C; ʻ #B ʻ ʻ ?C=#; ʻ = ʻ D?C= ʻ !;?<ʻ #B !# ʻ ;?DD ; ʻ K; # ?= ʻ ?KK; ! ?= ʻ = ʻ?#B ; ʻ ?8 = ʻ#?ʻ D ʻ@?<< ## ʻCK?=ʻ =>ʻ?!ʻ #B ;ʻ # ʻK @ D8 ʻ(CD @# ʻ = ʻ!?;ʻ#B # = ʻ #B ʻ & # # ʻ ? ʻ C#B?; W ʻ #B <ʻ #?ʻ A ; !?= ʻ !C@Bʻ @ #8 4 = ʻ B?C ʻ =ʻ #B ʻ ʻ D?C= ʻ ʻ B 8ʻ D ʻ <? # @?= = =# !?;ʻ #B ʻ ʻ ; @ ʻ @?<< = L =Aʻ #?ʻ 8ʻ #B ;ʻ # ʻA?? ʻ CD @# ʻ #?ʻ D ʻ ! !#9ʻ =Aʻ #?ʻ #B <ʻ =ʻ k ʻ K;? @C# ?= ʻ B ; ?!ʻ = ʻ #B ʻ ʻ ;@B D 8 ʻ K ;ʻ = ʻJ < ʻ(# E ;# ; ʻB ; L D>ʻ ?; ; ʻ #?ʻ @?;; K?= ʻ E #Bʻ #B ʻ @?<< = =Aʻ ?!! @ ;ʻ # (# ;8 =Aʻ !?;ʻ #B ʻ #>< ʻ ?;ʻ =>ʻ ?#B ;ʻ @?<L < = =Aʻ ?!! @ ;ʻ ?!ʻ #B ʻ # = =Aʻ !?;@ ʻ = F# #?ʻ #B <4 #?ʻ EB?<ʻ #B >ʻ ;ʻ #?ʻ A ʻ = ʻ @@?C=# ?!ʻ #B ;ʻ 88 A = 4 = ʻ !;?<ʻ EB?<ʻ =@ ! ʻ # ʻ D ʻ #B?CAB# = !C8ʻ #B >ʻ ; ʻ #?ʻ ; @ ʻ ?; ; ʻ !;?<ʻ #><ʻ #?ʻ #>< ʻ = ʻ #B ʻ & # # ʻ @8 ;ʻ #B # #B ;ʻ K; ! =# ʻ B 8ʻ =?# ?=8>ʻ @?=# =C 4 C=# 8ʻ #B ʻ ʻ K ;# ʻ ?!ʻ #B ;ʻ # ʻ = =Aʻ !?;@ ʻ D ʻ =# #?ʻ #B ʻ ʻ D?C= ʻ !?;ʻ #B ʻ = ʻ D? ʻ E; ## =ʻ DC# 8!?ʻ =ʻ @ ! ʻ #B ; !# ;ʻ # D ʻ = @ ! ;ʻ !?;ʻ #B ;ʻ * # ʻ g ! ; @ ʻ %B # #B ʻ ʻ K ;!?= ʻ B ʻ =ʻ ; = ʻ #?ʻ @?=@C;ʻ E #Bʻ = ʻ ! !# ʻ #B ;ʻ # ʻ !?;@ ʻ =ʻ K;?! @C#;?=ʻ ?!ʻ #B ʻ = ʻ D? ʻ < =# ?= ʻ (A= ʻ D>ʻ E ;; = ʻ f #B ʻ & # # ʻD>ʻ #B ʻ +C" ʻ?!ʻ < 8L #?=ʻ #B ;ʻ K; =#

)+6 , PN ʻ +ʻ & ʻ +,ʻ>+F ʻ & < ʻ , .ʻ *.7+* -&

% &ʻ & # # ʻ @?= ; =Aʻ B?Eʻ = @ 8 ;ʻ #ʻ ʻ !?;ʻ #B ;ʻ # ʻ! ; @ ʻ = ʻ !?;ʻ #B ʻ ! C; # ʻ ?!ʻ #B ʻ @?C=#;>ʻ ?!ʻ ?=# #Bʻ = ʻ K8 @ ʻ @ =# ?=ʻ D?#Bʻ > ʻ ?!ʻ #B ʻ ; ;ʻ ?!ʻ $?;#B4 #B # #B ʻ !??; ʻ = ʻ ! ;; ʻ ?!ʻ #B ʻ ʻ; ;ʻ D? ʻ (# ;8 =Aʻ B ʻAC ; ʻ = ʻ ! @C; ʻ = ʻ#B # #B >ʻ B ʻ!?;ʻ#B # !! @# ; 9ʻ ʻ ?8 ʻ#?ʻ = ʻ ʻ@?<K # =# =C<D ;ʻ ?!ʻ #B ʻ # = L =Aʻ!?;@ ʻ#?ʻ 8> ʻ =ʻA ; !?=ʻ =ʻ#B ʻ<? # @?= = =# @ #8 ʻ = ʻ B?C ʻ !?;ʻ ! =@ ʻ ?!ʻ #B ʻ ʻ K ! ʻ ? ;ʻ$?;#Bʻ = ʻ@?C=#;>ʻ ?!ʻ ?=# #B4 2 B @Bʻ !?;@ ʻ =?# D =Aʻ ʻ> # =ʻ ; = 9#?ʻ < ;@Bʻ #B #B ;ʻ %B ;9ʻ !?;ʻ #B ʻ & # # ʻ ; K? =Aʻ K @ 88ʻ #;C #ʻ = ʻ @?=L ! =@ ʻ =ʻ #B ʻ8?> 8#>ʻ ! 8 # ʻ = ʻA?? ʻ @?= C@# ?!

% &ʻ & # # ʻ?; =ʻ #B ʻ 1 K ; ʻ ?!ʻ #B ;ʻ L # ʻ <C= # ?=ʻ =ʻ #B ʻ @ #8 ʻ ?!ʻ (# ;8 =Aʻ #?ʻ 8> ;ʻ #?ʻ ;@BD 8 ʻ K ;ʻ?!ʻ ?NCB K8 ʻ?;ʻJ < ʻ(# E ;# >?1?!ʻ ; ?;8 @Bʻ?;ʻ #B ;ʻ ?!ʻ #B <ʻ ?;ʻ #B ;ʻ ?; ;ʻ = ʻB 8! ʻD ;; 88ʻ?!ʻ K?C ;ʻ!?;ʻ#B ʻC! ʻ?!ʻ #B ʻ@?<L K = ʻ#?ʻ D ʻ; ʻD>ʻ#B <ʻ@?=!?;< ʻ#?ʻ #B ;ʻ@?<L < ! ?=ʻ !;?<ʻ #B ʻ & # # ʻ !?;ʻ ! @C; =Aʻ #B ʻ !??; ʻ = ʻK ! A ʻ? ;ʻ#B ʻ; ;ʻ?!ʻ$?;#B4 = ʻ ?C=#;>ʻ ?!ʻ ?=# #B

M 2*. *ʻ,+*ʻ . 7 * 0ʻ 6 +ʻ +ʻ & ʻ= *. ʻ+,ʻ >+F & < Qʻ *.7+* . 8

2 ;; = '
+' ' ('
E 6 + '
+' .* ?' <* H
- < ',+*'
< 0' & '
,+*-

) * ' & # # ' ?!' #B ' 1 =A ?< ' @?= ; =A' #B #'
#B '; A < =# ' ?!' !??# = '#;? K ' ?!' B?;! ' = '+; L
A??= ' ; ! ' D>' ;#C ' ?!' #B ' ! ; 8' @?<< ! ?= '
A; =# 'D>' #B <' !?;' ! @C; # ' ?!' #B ' = # ?=' =' #B '
C=@#C; ' ; ' =?E' @?<K8 #4' = '#B #' #' '= @ ! ;>'
#B >' B?C8 ' D ' =# ; ' =#?' K >' = ' < =# = '
CK?=' #B 'KCD8 @"' @B ;A ' %B ;!?; '#B '& # # ' ? '
C#B?; W ' = ' *<K?E ;' #B ' +C" ' ?!' < 8#?= '
#B ;' K; =#' #?' ; E' K; @ K# ' CK?=' #B ' A = ; 86'
; @ ;' !?;' < " =A' K >< =#' #?' #B ' ?!! @ ; ' = '
!?C8 ; ' ?!' #B ' ' !?;@ (D?#B' B?;! ' !??# = '
+; A??= ' ?!' #B ;' K >' @?=!?;< ' #?' #B ' K; ! =#'
D8 B< =#' !;?<' #B ' >' ?!' #B ;'; K @# '<C!9'
; ' ?;' #B ;' D =A' #?A #B ;' !# ;' #B ' FK %; =A'
?!' #B ' # =' > ' K;? ?= ' C=#?' #B ' ! ; #' >' ?!'
JC= ' = F#4' = ' ?!' ' <?= #B ' K >' !# ;' #B ' '
! ; #' ?!' JC= 4' = '#B ' & # # ' + @8 ; ' #B #' #B '
B 88' F# = ' #?' !?;@ ' =' A ; !?= ' 8 ' E 88' '?#B ;'
!?;@

: ** .' +'
, 0 * '
+' G - '
)& *0 '
0 '< * '
,+ ' +'
)+6< *
. *' & '
< ',+,' * '
,+

% &' # =A' ?!' #B ' & # # ' @8 ; ' #B #' EB ;'
E ;; = ' ; ' A; =# 'D>' #B ' & # # ' ?;' #B ;' @?<L
< ## '!?;' @B ;A =A' K ;!?= ' =' ;< ' A =!#' #B '
K; ! =#' A? ;=< =#4' ?;' EB?' @?;; K?= 'E7 #B <' #?'
?<K ;' D !?;' #B ' & # # ' ?;' #B ' =#;C # ' ='
#B ' A? ;=< =#' C= ;' #B ' K =' ?!' #; ?=4 ?;' #?'
! = ' !C; # ' !?;' " K =A' #B ' K @ ' %B #' #B ' @ # 9'
?= ' ?;' @B ;A ' CK?=' #B ! 'E ;; = '< >' D ' F L
@C# ' D>' < ! =A ; ' #' ;< ' = ' + @8 ; ' #B #'
#B ' < ' B 88' D ' 8' 8 ' = '!C!! @ =#' ' !' #B >'
E ; ' F @C# ' D>' B ; 8

A; =#' E ;; = ' #?' 88' ?<< = ; ' =' #B ' 2+ . 0'
B ; !$ ' ?!' B>; ' 8A ' ?!' 8A ; ' = '; A L
8 # ' = ' #B ;' KC# ' < A #; # '?!' DC;AB ' %?'
A ' #B ;' @?=@C;; =@ ' Q' ! !# =@ ' !?;' #B ' KK; L
B = =A' ?!' #B ' ' + ;# ; 4' = ' !'= 'D '#?'
A ' #B ' 8 D ;# ' ?!' #B ;' K; !?= ' = ' E ; =A'
K8 @ ' = '#?' A; =#' E ;; = '!?;' D # =A' ?!' +;C< '
=' =>' K8 @ '#B ' K # # ?= ; ' #B ="' ! ##' !?;' ; @;C #L
=A' ?!' #B ' '; A < =#4' = '8 =A' ?!' < =' #B ;L
!?; ' '#B ' 'K # ?= 'D ; 'EB @B' / # # ?=' =A'
D>' #B ' ' < # =A' ?!' #B '& # # '@?= ; '#B >'
B ' A; =# ' = ' B ; D>') ; =# ' E = = '#?' #B '
K # # ?= ;'#?' D #' + ;C< ' =' =>' K8 @ '?!' #B ' 1 =A9'
?< '!?;' ; @;C # =A' ?!' #B ' ; A < =# D? ' < =L
?= ' = '8>" E > ' A; =# 'E ;; = '#?' B <' #?'
! W ' CK?=' = ' ! @C; ' !C@B' !?C8 ; ' D? ' K #'
'B ' ;# ' = ';C=' E >'!;?<' #B ;' ?88?C; '
=@ '#B '&8 =#B' >' ?!' + @ <D ;'8 #' = 'EB?'
; '=?#' =@ ' =A A ' = '# " =' ^ =' B ' L
' ; @ ' = '; NC ; '#B '< #; # '?!' C;AB '
= '?#B ;' < A #; # '#?' A '#B ;' @?=@C;; =@ ' ='
! @C; =A' #B ' ' ! ;# ;

% &' & # # ' ?; = '#B ' @?<< = =A' ?!! @ ;' !?;' !2 ;; !!8@
#B '#>< ' =' #B ' ; A < =# 8 # 8>' @?<< = 'D>' &'
#B ' & ;8 ' ?!' ;;' =?E' @ !# #?' < ;@B' E #B' 1 * ',' **'* 0H
#B ' ' A < =#' =#?' #B ' B>; ' ?!' $>! ' = ' 6 'F *H
1 =;? ' #B ;' #?' NC ;# ;' #' #B ' #?== ' ?!' & =;?! ' * .' '
J ,, 0'

?CK ;' = ' 1;;" 8 ' @?=!?;< ' #?' #B ' !?;< ;'
?; ;' =' #?' #B ' ' & ;8 ' D>' #B ' ?<< ## '
?!' & # #

*%' E ' <? ' #B #' ' 8 ## ;' E; ## =' #?' B ' ' MM= *',*+ *'
' !;?<' #B ' @?<< ## ' ?!' & # # ' + # '#B ' & ')+6 '
&8 =#B' ?!' J ' = # =#' < AB#' D ' KK;? ''D>' 6 ',' +'
#B ' & # # 4' = ' #B ' 8 ## ;' D =A' ; ' !# ;' ! < ' 1 ' +'
D # ' #' E 'KC#' #?' #B ' ?# ' *!' #B ' 8 ## ;' *B?C8 ' & ' C 0'
D ' KK;? =' ?;' =?#4' = 'E ' @ ;; ' =' #B ' !! ;L <<*+7 8
< #

'0&%%& ' !;?<' B ' # '#?' #B ' < # =A' ?!'
#B '& # # ' =' ; #C< '#?' #B #' EB @B' E ' ! =#' !;?<'
#B '& # # 'D '#B ;' @?<< ! ?= ; '#?' B ' # '
D =A' ; 'E ' ?; = '#?' D ' ; @?; ' = '#?' ! '
K; =# '?!' EB @B' 8 ## ;' #B '# =?;' !?88?E

(@' CK; @; D #C;' 2 *0 0 * '
>' 0?; 'Q') =#8 < =
% &' ?<< ! ?= ; ' =#' D>' >?E' B 'K; ! =# ' = *',*+6Z
>?C;' 0 ## ;' #?' ' 4' E #B' >?C;' / # # ?=' ?;' 8 <' ?!' E ' 8 '
AB#4' #B ') ; =@ 4' = ' >?C;' ; ! ' !?;' +' & 1,
#C;= =A' >?C' =#?' ' / ;8 < =#4' EB @B' E ; ' 88'
; ' =' ?C;' K; ! =@ 1' !# ;' EB @B' #B ' 3C =' = '
2 ' '# " ' = '! A= '#B ' #B' # = ; '#?' ' '
D>' >?C;' ' ?<< ! ?= ; 4' EB @B' XD>') ? ' ! #9'
=@ ' 2 'E 88' ; 8 A ?C 8>' ?D! ;

JC= '= F#4' ' #'D =A'=?E > ' ! ##'#B #'#B '
# ?=' B?C8 ' D ' 8 !#' E #B?C#' A? :=< =#' =' #B '
< =' #>< ' %B ·!?;' 2 ' < ## ' + @8 · # ?='!?;'#B #'
= ' C A < =#' ?!' #B ' & # # ' =' #B ' @ @ ' EB @B'
D =A'@?= ; 'D>'#B <' *'#' ' #B .' ?K = ?=4'#B #'
8D #' B ' # ' E ·: = ' ?·' @?< < ! ?= ' !?·9'
' ? ' =?# @?=# = ' ' @8 C ' K =! =A' E #B'
#B '=?# ! 8 =A' #B ·?!4 #' =' #B ' C=@#C; 4' #B #'
#B ' O?; ' = ' ?#B . ' =' = < . ' !C!! =#9'
8>' C#B?; '#?' K;?@ ' = ' @# ' B ' # #'
K; ' @?C=@ 8#' D>' ;#C ' ?!' k ' !?·! ' E ·: = 4'
C=# 8#' B ' # @' A= ! ' B ' !C;#B .' K8 C; '
B\\ = =#

+' ?C;' ! ; #' =A A =A' =' #B ' C= ;#" " =A' 2 '
B 'K ;# @C8 .' @?= : # ?='Q: A ; !?;' (@?#0 = 4'
= '#B · !?;' 2 ' < ## ' + @8 · # ?='!?;'#B #'
E '' ' #B ' 1 =A ?< 4' EB @B' 2 ' =# = ' #?'
< " ' A?? ' Q $ @#C '' #?' >?C4' = ' >?C' B 8#
8E > ' ! = ' ' ' '. >'#?' K;?# @#' >?C4' Q ! #' >?C'
=' < " =A' !C@B' O E ' ' < >' ! @C; ' >?C;' 8 L
A ?=4' O D ;# ' Q /;?K ;# 4' = ' K; =# ?;' ; 9'
. ' ! ' EB # .' < >' D ' C #8>' A; ?C ' #?' >?C'
2 ' B 8# = 8.' D 8 ' #B ' #B ' #;C ' =# ; # ?!
#B ' / ?K8 ' Q #B ' .?E=' @ =' B ' ?KK? #4' = ' B 8#
8E > ' @@?C=#' #B # ?C;' A; # # K; ·?A # ' #?'
= @#' !C@B' O E ' ' < >' K;?<?# ' #;C#B4' K @ ' Q
E 8#B' =' ?C;' & =A ?<

% &' 8 ## .' C= .' E; ## =' E ' : @#' #?' B ' L
# @' =' : #C< ' ?!' B ' # ' 8 ## .' #?' #B '
& # #

>' #' K8 '>?C;' # @'
' ' # '<? #' A;' @ ?C ' 8 ## .' ?!' #B ' =9'
=' = # =#' A ' C ' ?@@ ! ?=' #?' @"=?E8 A ' #B #'
' E #B' C= FK; ! D8 ' # ! @# ?=' E ' 8??'" CK?='
#B '@?= # ?='E '=?E' ; '=4 ?!' D =A'?!'#B '=C<L
D ' ?!' >?C;' # C#>!C88' CD @#' = ' ?'
C= .' #B 'K;?# @# ?=' = ' @?= C@#?!'?C;' 8 : ;4'
' /; =@ ' ?!' ? <C@B'E ?< ' C # @ 'Q K #>' = '
='' A; # =@ ' ?!' D =A' !; ' !·?<' #B ' KK; g'
B = ?= ' 8!E '' ?!' B W ; ' #B; #= ' !;?<' D;? '
' ?!' *=# # = ' @?<<?# ?=' ' #' B?< 4 ?' E ' #B ="'
#' ?C;' C#>' #?' : = ;' >?C;' # @' ?C;' B :#>'
#B ="' #B # >?E' B ' D =' A; @ ?C 8>' K8 ' #?'
@?<K8>' E #B' ?C;' ; ' = ' #?' A; =#' #B #' #B '
< # =A' B?C8 ' D ' #C;= ' =#?' ' / ·;8 < =#

* ' ?D =@ ' #?' >?C;' ?> 8#@?< < = ' E ' B '
*! ' !C;#B' ' K;?@8 < # ?=' · NC · =A' '' #B ' < <L
D ; '#?'D ' K; ! =#'#B ' >' KK?=# 'B>'>?C;' # 4'
DC#' ; 8# ?!' #B <' ·>' @?= ; D8 ' K ·!?=' '
D =A'= @ ! ·8>' =A A ' !?;' ! @C· =A' #B ' K @ '
?!' #B ' @?C=#; >' #?' · K ;' #?'#B ' K8 @ ' ?!' #B ·' =L
; # ' = ' #B ·'#?'@?=#=C ' #8 # C=# 8#'#B ' 8 '
D ' !C8#>'@?<K8 # 4' #B ' · · ?='#?' D 8 ' #B '#
#B ' < # =A' ?!' #B ' ! !#B' ?!' JC= ' @ ==?'# DJ7 ?'!; L
NC =#' ' ' = @ ! ·'>'!?;' K ' A; # !! · ' #B >' < >'
B ' C= ·' #B ' @?= ' # ?=' %B ·!?;' E ' ? '
BC<D#>' !; ' #B # '8?=A ·' >' < >'D ' KK?>=#9'
 '!?;'#B ' < # =A' ?!'#B ' / ·8 < =#

(@' (CD @; D #C;'4

&0 *00

d$?:'#B ' # =A' ?!' #B ' & # # ' ?!' ?C;'
=@ =#' 1 =A ?< ' ?!' (@?# = -

%&'+< +'
+','&','1, 0'
-+ - * '
& ' , 0'+','
/ ,'+#' & '
)+6 9 ', '&'
<' ,'&'

2 & (' *#' E ' ; K; =# ' #B ' '> #?' #B '
< # =A' ?!' #B ' & # # ' D>' #B ' +C" ' ?!' < @#?=
#B ' #>< ' ?!' ?C;' ?C;=< =#' #?' E; # ' ## .' = ' #B '
< # =A' ?!' #B ' & # # # ' D =A' =?E' #?' D ' @ < '
@?=!?;' < '#?' B ' # ' 8 ## .' C=#?' #B ' !>!#B' ?!

=)*'

%B 0?; 8 =#>;
0?; ; ;?
0?; C;AB8
0?; !$?;; !# ;
0?; ;A =>
0?; 88B =
0?; ;< @B 88
0?; ?'?
0?; C#B =
0?; E ;"
%B 0?; ?@ #

((& ($ ' (&(
& =DC;AB
(7J?B= #"= ?!
8; A
=A#?C=
%B 0 ; ?!(# = ?=
%B 0 ; ?!; <#?=
;E @"
%B 0 ; ?!0 =A#?= &8 ;
%B 0 ; ?!/?8E #
?FDC;AB
(7/ #; @" (=#?! =@;C =
(I8" ;"
(72H (@?#?! ; =
) ?;A /; =A8 ?!%?;E?? 8
/ D8
4 %B 8 ; ?! 8 @"D ;?=>
0 B ;"
%B 8 ; ?!0 < =A#?C=
(+ = 8 ;< @B 8?! J 8
+C<!;
(J < J?B= #?C=?!2 # ;; E
2 A#?C=
(= ; E A= E?!0?@B= E
2H +?CA 88?!) ;#B8 =
;
%B 8 ; ?!(" 8<?;8
+C<D ;#?C=
8 C < 8#?=?! ;=
2H7 ?8NCB?C=?! ; A#?=
C#
+ ?>8?!1 8DC<
=!; E
(J?H FE 88?!/?88?@"
C= =AB <?! ; A =
(#;8=A
(B ;8 &; " =?! 8
J?H ?E!#?C=>?!K7 8"
0=8#BA?E
%B?Z+; <?= ?! @@ ;#?C=
/ #Z C;; >?!0 =A#?C=
/ ;#B
J < < >?! <!
1=@ ; =
0 (%B?Z C< #?!0 >
8 F ';= #?!1=?F
D ; =
(J?B=$?;D ?! ; A ;
J < ? ;?!(#?=>E??

*=C <
+C=@ =!?;D ?!?'?=
<
(CAB <KD 8?! 8 ;
J?B= >?!0?@B8?>
;A>8
J?B= <KD 8 K7?! ; @"
$>!!
2H = #; #B ;>?!?7 8"
J?B=+ <K # ;?!/ #8 ;
!!?;! ;
%B 8 ;?!+C=
<!$
8 F+C!!?!; @?
(#E ;#; ?!& ;"C D; AB#
CAB HAC!!?@"?!C8!
(C#B ;8 =
<)?; ?=?!+ 8!?'>
&8A =
%B 8 ; ?!; ?
%B?Z+C<D ;?!);<A
?!
(J?H ?=;?!$?C8

((& ($ ') (
& =DC;AB
X(J?B= 88
!)?;A (#;8=A
/ ;#B ?D ;#(<#B
+C= J < !!8 #@B ;
D ; = 8 F = ;)?; ?C=
(#;8=A CAB1 ==
0=8#BA?E5 2 88 <AA =
(7 = ; E J < (<#B
)8 A?E J?B= = ;!?=
; J?B= C ;
+> ;# + B; !#
1 ;" 8 J?B= ?!E 88
?=#;?8 J < C
?EK ; ?D ;# 8 88
= #;C#B ;@ # ; + (K =
+C<!; J < 1 == =
*=C ;= J?B= C#BD ;#
;C=# 8 = 8 F = ;)
*=C ;" #B=A 8 F = ;(K #8
1=AB?< / #; @" 2 88 @
*; = F 8 F C= =AB < 9
J DC;AB <= 8 >
& ;"C DC;AB J?B= &E ;#
2 A#?C= 2 88 <?8#; =
+C<! ;<8= (B ;8 8" #
/ ## =E <) ?;A (<#B
(8" ;" J?B= C;; >
+C<D ;#?C= J < (<?88 #
=!; E 2H ?@B; =
+C<D ; J < (<#B
0 = ;" %B?< < 8#?C=
D ;D;?#B?@" / #; @" (# =
&8A = J < (# E ;#
/ D8 J?B= C ;
; 88) ?;A ?=@; !!

% >= 2 88 <' ?! '
F 8;?! $ 2 HY&;8" = '
<!! 2 8# ;' (# E ;#
2 B #B?;= / #; @"' C; ?@B'
$?;! ; J?B=' ;= A '
;= J?B=' ?! '
C#B ;A8 i J?B=' (@?#
?;#BD ; @" %B?< ' (# # ;#
= #;C#B ;' E # ; ⅈ ?D ;# 8 88 = '
C =' ⅈ (ⅈ J < ' A 8 '
== = ;>@ ' 8 ;'
0? B< D = %B?< ' 1 == '
(=NCD ; ⅈ J?B=' ?!E 88'
+?;=?@D) ?;A ') ?; ?= '
3C = ! ;; ⅈ 2 H' < 8#?C='
*=C ; ;> CAB' ;?C= '
*=C ;C;> J?B=' = ;!?= '
*= ;D ; 2 88 <' ##

!# ;' / ; > ; ' '#B ' ?88 ' 2 ; ' 88

d%;?# # 9 %' #B ' 88 =A' ?!'#B ' ? ('#B '& ;8 '?!' (?C#B ;9'
(C ;8;? ' 8 = ' ' / ;?# #' #B #' #B ' ; =" =A' = '@ 88 =A' ='
#B ' ;?88 '?!' =>' ?!'#B '& ;8 'B !?;'B <' < AB#'=?#'
K; C A 'B <'?!'B '; AB#'?!'K; @ =@>'B !?;'#B =

% &' +C" ' ?!' < 8#?C= ' ' *=# < # '#?' #B '
& # # ' #B #' B ' #>' B =A' D =' K8 '#?'
@?<K8>' E #B' #B ;' ; ' =' #C< =A' #B ' < # =A'
?!' #B '& # # ' =#?' ' / ;8 < =#4 'B ' A= ! '
D ' ?> 88' /8 !C; ' #B ; =' D>' '0 ## ;'#?'#B '& L
4 = ' #B #' B ' # 'B #B'A; =# ' ' ?<9'
< ! ?= ' #?' B <' #?' K; ! =# 'B ' ?> 88'K ;!?= '
= ' C#B?; # ' =' #B ' ! ; #' (! ?= '?!'#B ' / 9'
< =#' = ' #B #' B 'B ' ; @ ' = ' = #;C@# ?='
!;?<'B ' # 4 #?'A 'B ' ?> '' ! =#'#?' = '
@#' !?;' #C;= =A' #B ' < # =A' ?!' #B '& # # ' =#?'
' / ;8 < =#4 = ' B 'A; @ ' 'K;? C@ '#B '!?;9'
' ?<< ! ?= ' = ' 8 ## ;' EB @B'D =A' ; '#B '
& # # '?; = '#B <'#?'D ' @?;

$?88?E '#B ' # =?;' ?!'#B '!?; ' ?<< ! ?=4

" . . %6,%"7
7'62Q"+,' "6'
31-' 8S-' "6'
2 . %3"7
"' / -' %,'
2$-,3%-,'
" . . %6'
,%"7-+' 3"' 31-'
2+!%2 . -73

) ' 0*&0 ' (' + ' A; # ' A= ' ; # = '
$; =@ ' #' D ;= ' F' ! NC ' + ! = ?;' <L
= DC ' K;?D ' B?< = DC ' C ' ' NC? ' K; ! =# '
8 # ; ' K ; = ; =#' (8C# <' 3C = ?NC <' ? ' '
?= =#C' ?; =C<' =# NC ' =? #; ' (@?# ' A= '
?A #' 8 N 'A; DC '@?= ; # ?= DC '<?# 4 C=9'
<' @?= =#C<' =' C <' A= ' / ;8 < =#C; '
& =DC;A ' NC =#?' ' < =! ' JC= ' K;?F < ' 8 9'
D =# ' # = = C<4 ;# ; ' @; <C 4 &#' NC '
X; D ' =? 8; ' < A= ' <?< =#' =' =A8 ' =? ' ?9'
@ =# DC 4`' / ; < ' (! ?=' C <' / ;8 < =#'
K ;!?= 8 # ;' =# ; ! ' = NC <C ' * ?NC ' @?<; !9'
?= <' =? #; <' @C <' (CK; < '?; = '!C<< N'
! C@ ' @' K;C =# ' 3C ' A <' =?!#; <' K ;9'
!?= <' #' C#?; # # <' *= D ' ; K; ! =# #' @?=@ ;

!8 #C <C ' C<N' =?D '8C C8 =# ;' ?= # #4 # <' '
*= A=' ! 8 # # ' #' =# A; # # 4' NC <' ' F < '
= < ' ?# DC ' ! ! < ' #' @! 8 @# ! < '@?=! =AC = '
=? #;' #' @?= 8 ; ') C8 8< ' +C@ ' ' < 8#?= '
@C C ' A; A ' = < ' ?# ' '!C < <C<' 88C '! C9'
' <C=C '?D C= C<'&#' ' / ' #' A '=? #; '
=# =# ?= 4 # <' K;?' @?<? ?' #' =# ; ! ' C <'
A= '' #' ='&@@8 ' #' =' # #C'KCD! @?4 NC <'K;?'
! ; # ?' =? #;?' K;?<? = ?' K(C<' K;?<K#C<' @
* ?= C<' <? C<' ; C=#4 @' =?='@?= ;9'
B# ' ! <' #' W 8C<' K;?' ; ' =? #; ' K 9' C= <'
C@ <' B @# =C ' FB D #C<' ? ; # ' *A #C;' ? '
! ' #' @?=@ ! 8 ' # =?; N ' K; ! =# C<' + ; '
#' @?=@ ; 4 < <?; #?' ! ! <?' #' 8 # ! <?'
=?!#;?' @?= =AC = ?' #' ?= 8 ; ?') C8 8<?' + C '
' =C8#?C= ' K ;!?= <' #' @; ;=' B? 8; <' < 9'
<' =' K; < ' ! ! ?= ' C <' / ;8 < =#'
; K; ! =# ' ; A 8 N '=? #; ' C#?; # # ' =' ; 'NC 4'
CD @C=# ' ' &@@8 ' ! ; = 4' K @ ' #' K?8 # # '
C <'; A= '@?= ; = ' #' F@?8 = ' #' ; ' =? L
#; 'K; K?A = ' #' K;?<? = '#; @# = C<' !C ; #4'
C# = ' #' =' =AC8 ' #' C= ;! ' C <' < = 9'
#; # ?= DC '# =NC <' CK; <?' =? #;?' ?<< ! ?=9'
; ?' C =^!'K8 = ! <C<4 #=K8 ! < <4 #' CD ;9'
; < <' K?# !# # <' #' @?<< ! ?= <' / ?;;?' # = ; '
K; ! =# C<' K; @#C<') C8 8<C<' +C@ <' ' L
< 8#?C= ' @C<' # #C8?' @?<< 8 ?= ; ' =? #;' ; A 8'
=? #; ' C#D?; # # '*= A= <C ' K8 = <N ' K '#; DC 9'
<C ' K?# # # <' #'! @C8# # <4 ?<= ' #' =AC8 ' '
*< K ; C<' #' <C=C ' ?<< ! ?= ; ' K @# =# 4'
<<'K8 = ' ?N'8 D ; ' ='NC? '; K @#C' @'NC '
8 C ' C <' <C= ; ' @' @D ; @# ; 4 ; A= C# '
NC? ' F' ; A ' =? #; 'K; @ ! ?; DC '! @ ; #' 8'
! @ ; 'K?#C ; #' ! = 4 A = ' #'K ; A = '3C 9'
NC <'?<= ' #'! =AC8 ' =' @# 'B @' ?<< ! ?= '
K;?! NC< ' D' ?! @# # = ' ? '! ;< # ;' KK;?9'
D <C ' ?=! ;< <C ' #' ; # 'B D <C ' <= DC ' #'
=AC8 ' *= CK ;' =? #; 'K 8 # ' C@;' =' B?@' ; A!#?'
?< # DC ' 8' # #C ' =? #; ' ?! !#@ 8 BC ' N ' NC '
=?D ' D' =# < '@?= 8 ' C @ DC 4' &F ;@ # '=? #; '
+C@ DC ' #' #; D== ' #' @ # ; ' NC DC @C=N ' BC C '
; A= '=? #; '!CD # 'C#' @#C<'=? #;C<'! ! <C<'
#' 8 @# ! <C<' @?= =AC = C<') C8 8<C<' +CL
@ <'! ' < 8#?= '# =NC <'!CK; <C<'=?88;C<' ='
B?@' ; A=?' D<< ! ?= ; C<4 ! ; <'=? #; <' K ;L
!?= <' #' < # # <' ; K; ! =# =# <4 ; A 8 <N '
=? #; <' C#?; # # <' A ; =# <' !' !! @#C<' #'
@C=! C<'=?;< <' ='B @'=? #; '@?<< ! ?= 'K; 9'
@; K# <' X3C NC <' ?<< ! ?' ! @#?' NC =#?'
! ' < = ' JC= ' K;?F < ' NC =# ' *=@8C! ' =9'
@ K #' #' =' A?; ' =' C8# <C<' C N' <' K; < '
(! ?= 'K; @#' / ;8 < =#' # <' =@8C! ' C; 9'
D #'`A=?!@ =#'@?8 =#' #' @#?' K C ' C =# ' K; 9'
D =#4 #; @# '< = <C ' #' <K ; <C 4 @' / ; # ; '
K; ! =# <' B =@' =?!#; <' @?<< ! ?= <' D!N'TK; 9'
C @ ?' !?; '@C ' 8 ?' + K8?< #6' ' ?<< ! ?= '
'NC? ' 8 ?' <C= ; ' C#' / ; = 4' K ;' ?' < 9'
<?; #?') C8 8<?' +C@ ' ' < 8#?C=' B @# =C '
@?=@ ! ' NC ' C; =# 'B @' =? #; ' @?<< ! ?= 4 #'
<' # <' FK ; #' =' K8 =?' A?; ' C; =#

' /

=(

D = K8 @ #?=? #;?< <? ?= <8 # ; K # =# 9
DC # @?=< !# ?= DC&(K ;# @C ; # ; # K# @?=# =C ; # C; ; ?8C<C *=@C C ; # # L
<?= C< K; =# DC < A=C< (A 88C< =? #;C< KK = < = <C KC C8 < =? #; <) ?K#B 88 %; @ ! <? K; <? < = == ?< = < 8 ! < ! F@ =# ! <?6 ? #?A ! <D=?=?= ==? A= =?!#; K; <? / ; A= #C; < < =C (5 * ` Z Z A CK; !@; K#
2 ; ## = #?#B A; # 88 = ; A #; # #B !>!# + > ?! JC= H ^P AB#> =>= @ CD7 J?Z) ; B < +K7 (8 # & =DC;A #B !>!# > ?! JC= * j > ? AB#> =>= (@ !CD!@; D #C; J?5 C= =AB <

&?88?E #B # =?; ?! B # 8 ## ; #?#B & # #

(@ (CK; @; D #C; 2 *0 0 *
> 0?; Q) =#8 < =
-33-+ 6+" . %, 2$-,3%4 3"31- !!23-,
C; 8 # ?! #B VHH = # =# ; @# #?> >?E 2 A >?C = @@?C=#4 #B # 2 B # !
>?C; ; @?=# = =#B *= #;C@# ?= A =#?
>?C; ?<< ! ?= ; 4 = K ;# @C8 ;8> CK?= >?C;
; ! #?D #C;= =#?/ ;8 < =#4 2
A= !> ?C; !?8C# ?=#?@?<K8> E #B >?C =#B #
< ## ;4 = #B #=?# < < AB# D 8? # !?; 8 A 88
##8 < =# ?! ;> #B =A #B # < AB# @?=@ ;= #B
E B ; ?! ?C; =@ =# 1 =A ?< 4 2 C#B?L
; >?C #?= ?C; => ?C; 8 # ! !#B ?! JC=
= F# #B # 2 < AB# #B = < # >?C = / ;8 L
< =#4 = 2 ! C; >?C #B # 2 E?F 8
$ 8 > ?C; /; ;?A # ?; #B =# A #B
;?E= < > B = #B 88 =@ E #B #B #;C
=# ; # ?! ?C; / ?K8 4 = #B # 2 B?C8 = ;
D 8 #B ; =# ; # Q C; @?C8 D ?KK? #

%# #B # < #>< 2 A= !> #?= ?C; ; AB#
#;C #> = =# ; 8> D 8? ?C = Q ?C=@ 88?;
2 88 <+C" ?! < 8#?= ?C; =# =# ?=4 #B # B
B?C8 ; K; ! =# ?C; ?> 88 / ;!?= ?C; AB
?<< ! ?= ; #?#B # (! ?= ?! / ;8 < =#4 =
=@ #B K; ! =# @ ;@C< # =@ Q F A =@ #B #
; @?<< = ; #B ; #?#C; => ?C; =#?/ ;8 < =#4
#B =#?@ 88 = E ?= < # =?8 > #?L
C # B *= #;C@# ?= B ; 5 2 B C#B?; W
?C; ?<< ! ?= ; #?K ! !C@B #B =A =#?0 E
B D = 8 # 8> C= ; >?C; @?= ; # ?=4 =
; 8 # ?= #?#B) ; =@ 4 ?; EB # ; 8 < AB#
= #?#B @C; #> ?! 8 A ?=4 = #B K;? K L
; #> ?! #B # 1 =A ?< 4 = @@?; =A8> 2
?; ; ?<< ! ?= Q K; K ; *= #;C@# ?= #?
?C; ?<< ! ?= ;4 <K?E ; =A B <#?#C; => ?C; =#?
/ ;8 < =# E #B >?C; ?E= @?=! =# = 8 " 9
E > !?; # D8 !B =A #B BC;@B) ? ;=< =#4
@@?; =A #?> ?C; ; Q =@8 = # ?= 4 = !?;
; F ! =A #B 0 E ; @C; =A >?C A = # 88 #B
;# @8 ?! >?C;) ; =@ 4 2 B ; D> 2 B
?= 88 CK?= ?C; K 8;# #?; = ; >?C B KK> Q
@?=# =#

> >?C; 8 ## ; ?! #B SJ7 *= # =#4 = =?#B ;
!;?< ?C; ; AB# #;C #> = =# ; 8> D 8? ?C =
Q ?C=@ 88?; 2 88 <+C" ?! < 8#?= 2
K ;@ # # >?C; ; #B # #B (! ?= ?! / ;L
8 < =# < > D 8 > !?; ?< # < 4 = #B #
< => ?! >?C; <D ; @ ==?# ## = #B ! ; #
> # C# >?C ?=?# ?!! ; #B !?= #B #
B = C@ >?C #?= 8# ; >?C; !?; < ; ! ; 4 =
#?= 8 > #B @C; =A >?C; ?C= B KK = ! #
#B # #B EB?8 <D ; < > D =?=?= C=@ ; # =#>
?! #B ; ## = =@ 2 B C#B?; W ?C; ?<L
< ! ?= ; XX !# ; >?C; D =A #C; = =#?/ ;8 L
< =# #?= ?C; => ?C; !;?< #B H7 > ?! JC= #?
#B V[[> ?! #B < ?=#B4 # EB @B #C= 4 2
FK @# >?C B 88 D ! ; NC =#8> < ## = >?C
E 88 K;?@ E #B C= #> = @?=@?; # ! ##8 Q
@C; #B A; # @?=@ ;= ?! #B R ,$+ 88T
K; # + A= Q = <? # D =n ! EB @B < > ?D!8;C@# #B B KK> !C@
=A4 9 = ? 2 D >?C B ;
) = # ?C; ?C; # # ?K#B 88 0 B#8
> G = ?! ?C; A= #B
> B 7 @?=< = (@ (CB @; D #C; &0 *00

%@8 ; =A #B # =A ?! #B & # # #?D / ;8 < =#

% &1 =A Q 3C = # E #B >@ = @?= =# ?! #B & # # ?! #B 1 =A ?< K; =#8>
!# <D8 4 +?= &= @# = + @8 ; 4 #B # #B #B; &
=?E < ## #?A #B ; #B !>!#B ?! JC= * I
@P AB#> =>= @?= # =A ?! #B ?D8 < = ;?= Q ?;;?CAB 4 ; 8 E!C88 = !; / ;8 < =#4 = ; B ; D> + 8 ; &= @# = C A #?D C@B4 #?@ 88 =# =# = 4 KC;K? EB # ?<9 ;4 =?#E #B # = =A ?! #B E =# ?! =>= E E; # ?; K;?@8 < # ?= !?; @ 88 =A #B < 4 ?; #B E =# ?! => ?#B ; ?8 <= #> = #B # 88 @# = # L #C# #?D K # #B ; = B 88 D ; @ 4 @"=?EL 8 A = ?D > D> #B CD @# @# ?! / ;L 8 < =# = 8 E ?! #B 1 =A ?< = # B ; D> 8 ; 4 #B # # B 88 D B AB #; ?= !?; => K ;!?= #?@ ?C= 4 NC ;; 88 ?; *<KCA= #B A= #> = C#B?; # ?! #B / ;8 < =# CK?= => K; # =@ EB #!?< ;4 = ?; = #B K; =# #?D KCD8 B # #B < ;@ # @;?! ?! & =DC;AB #B # =?= K; # = A=?; =@

2 B @B @# !# ; # E ?# E #?C#@B D> B # @?=< ! ?= ; E #B #B @ K# ;

*(# ?=< !# ?= ; B =A A= ! T 1- 1 * #B & # # #B # # E B * # K8 C; #B K ! =# #B & ;8 ?! ; C!C; B?C8 K; =# #B ! ; # (! ?= ?! B # ! ; # / ;8 < =# #B & ;8 @?= ! ;?< #B 0?; D =@B = #??" B # / ; =# ?! #B / ;8 < =#

% &1 /%& '#B ' / ;8 < =#E ' ! =@ 'D>'#B ' 0>?='+ KC# ' ='#B ' # ;< ' !?88?E =A'?= ' ?!' #B ' @8 ;" '; =A'#B 'E?; ' = 'B '; K # =A'#B ' <

%' @?A= W =A' #B ;' # ' ?> 88' C#B?; # ' = ' !?;' # " =A' #B ' #B' ?!' 4 88 A =@

* $ (' ' ' #B ' 1 =A' = ' 3C = ' L
, - . # 'E #B' >@ ' = ' @?= =#' ?!' #B W& # # ' ?!' #B ' 1 =A ?< 'B ' @8 ; '#B ' # =A' ?!' #B ' & # # '#?'D ' ' / ;8 < =#4 = '#B '& # # '?!' / ;9 8 <7 D =A' =?E' < ##' = ' @?= = '9#B ' >4 %B ;!?;'*' ='#B '= < ' ?!'#B ;' # ' 2 88 <' Q 'D>'#B 'A; @ ' ?!')? ' 1 =A' = ' 3C ='?!' (@?#8 = 4 &=A8 = ' $; =@ ' = ' *; 8 = 47 = ' =' #B '= < '?!' 2 88 <' +C" ' ?!' < 8#?='B ' L # 'B AB' ?<< ! ?= ;'!?;' #B ' 1 =A ?< ' +? ' ! =@ ' #B ' B AB' ?C;# ?!' / ;8 < =#' #?' ##' B?8 ' = '@?=# =C ' C; =A' B ' # 'K8 C; 4 = ' *' @?<< = ' 88' = ' !C= ;>'#?' ; ; =@ ' @"=?EL 8 A ' = '?D >'#B ' < ' = ' *' ! = W = '!?;L D Z 88' K ; ?= 'EB # ?< ;' #?' < " '?;'K@@ ! K=' =>'#;?CD8 '?;' <K8 # # ?= '#?'#B '@?C;#?!' / ;8 L < =#4 ('#B >'E 88' =!E ;' #'#B ;'B AB #'K ; 88

Y ?C;=9 % &' 1 =A'Q 3C = ' # '+ @8 ; '#B ' / ;9 =A' '8 < =#' @C;; =#' = ' ?C;= '#B ' < 5'#?' #B ' =# ='?!' JC= ' = # =#' =J' ?; = ' < <9 D ; '?!' / ;8 < =#' #?' ## = '#B #' >' = '#B #' #B ;' D '=?' = E' &8 @# ?## '?!' @?<< 8 ?= ; '!;?<' B>; '?;'DC;AB '&F@ K# CK?='#B ' #B' ?!' ?< '?!'#B 'K; =#' @?<< ! ?= ;

%' &+* ') 4

J%% '' , **4' % =, , , 8 ,

%'#B '@ 88 =A'?!'#B ' ? '#B ' NC '?!'+?CAL 8 'A ' ='#B 'K;?# # # ?= '!?88?E =A4 EB @B' B ' ; '#?'D ' @?;

+"3-6326%"'7 2+]8%,' "6'@ "8#!2,'6"+' 31-'6%+,3',-23-' 275'Q"3-'%7' 31%,'48++-73 2+!%2 . -73

*' J < ' ;NC '?!'+?CA8 ' ? 'B ; B>'K;?# #' A =#B 'A; @ ' 2 88 <' +C" '?!' 3C = D ;; ' = ' ' ?#B ; ' EB #!?< ;' #B ;' ## =A' D =A' @ 88 '?;' ?# =A' ='#B 'K; ! =#' / ;8 < =#' D !?; ' < ' *='; A ; ' *' # = 'KCD8 @"8>' =! !#' C= ;'#B ' A; # 88' E #B' #B 'K; 8 A '?!' ! ; #' #' ' = ' ?# ' =' ' / ;B < =#' ?= =# ?= ' ?!' & # # ' = ' ?C=@ 88 '?!' #B ' 1 =A ?< 4 'E ; '<>'K;?L A = #?; 9'Q K; @ ! ?; ' #B ' ; 88' BC= ; ' > ; 'D>A?= 4 = '! ; ;' *' / ;?# #' #B #' *' < >' B '; < '?!' 8 E' = '#B ' <>'K; 8 A ' @8 ;L ' ='#B 'K; ! =#' / ;8 < =#4 CK?='#B ' ; AB#' = ' ; !?= '#B #' *' B 88' FB D # 'D !?;'#B <' = 'CK?=' D 1<>'K;?# # # ?='*' # " ' = #;C< =#

G"3-,32@ 2+!'"6

% &' & ;8 ' ?!' 0 =' / ;?# # ' #B #' #B ' @ 88 =A' ?!' #B ' & ;8 ' ?!' 88 = ;' ='#B ' ?88 'D !?;'B <' < AB#' =?#' K; C A ' B <' ' #?' B ' ; AB#' ?!' K; 9[@ =@>'D !?;'#B ' & ;8 ' ?!' 88 = ;

%' @?A= W =A' #B ;' # ' ?> 88' C#B?; # ' = ' !?;' # " =A' #B ' #B' ?!' 4 88 A =@

% &' & # # ' ?!' / ;8 < =#' @?= ; =A' #B #' #B ' 1 =A' = ' 3C = ' # ' B ' @@ K# ' ?!' #B ' @;?C= ' ?!' #B ' ; 8< 4 # = ; ' #?' #B <' D>' #B ' < # =A' ?!' #B ' & # # ' =' #B ;' 8 < ' ?!' AB#' # ' #B ' &8 =#B' >'?!' K;>88' 8 #4 = ' @94 @?; =A' #B ;#?' B ' E?;= '#B '? #B' KK?>=# 'D>' 8 E4 #?'D '# " ='D>' ' 1 =A ' = ' 3C = ' ?!' #B ' ; 8< 4 D !?; ' #B >' F ;@ ' #B ;' A ' K?E ;4 %B ;!?; '#B '& # # ' ?!' / ;8 < =#' !?;'#B < 8 ' = ' ='= < ' = 'D B 8! '?!'#B 'B 8 CD @#'?!'#B ' 1 =A ?< '; K; =# 'D>'#B <' +? 'B ; D>' ! ;# ; @?A= W ' = ' @"=?E8 A '#B ;' # ' ?> '' K?E ;' = ' C#B?; # ' ? ;'#B ' ' 1 =A ?< 4 = ' #B ;' C= ?CD# ' ; AB#' = ' # #8 ' #?' #B ' *<K ; 88' ;?C= ' #B ;?!4 0>" '#B ;' # 'E #B' >@ ' = '@?= =#' ?!' #B ' '& # # ' ?!' / ;8 < =#' +? ' @8 ;4 #B #'4 #' 'B AB' #; ?=' =' =>' #B ' CDL @#' ?!' #B ' 1 =A ?< 'D>' E; # =A' K " =A' ?;' =>' ?#B ;' < == ;' ?!' E >'#?' ?C= ' NC ;; ' ?;' *<KCA= '#B ;' # ' ;?> 88' K?E ;' = ' C#B?L ; # '?;' ; AB#' = ' # #8 ' #?' #B ' @;?C= ' = '! ; ;' #B ;' # 'E #B' e >@ ' = ' @?= =#' !?; ' +? ' # #C# ' = '?; = '#B #' #B ' ? #B' ?!' 88 9' =@ 'B ; C=#?' CD ?>= ' D 'D ' E?;= ' = ' !CD9' !@;> D> '#B ' < <D ; ' = ' @8 ;" ' ?!' / ; 9' < ?#4 = ' D>' ' ?#B ;' K ;!?= ' K; ! =#8>' =' KCD @#' #;C #' @ '' ?;' < 8 # ;>' ?;' EB?' B ' D ' B ; !# ;' @ '#?' =>' KCB8 @#' #;C #' E #B =' #B ' 1 =A ?< 4 = '+? 'B ; D>'; #; #' = '; ! = ' 88' K; @ =A'8 E ' = ' @#'?!' / ;8 < =#' =' C '! ;;' ' #B >' *<K? ' =>' ?#B ;' ? #B ' ?!' 88 A =@ ' CK; < @ ' @8 ; # ?= ' = ' # #' &F@ K# =A' #B ' ? #B' '! 8

$?88?E '#B ' #B' ?!' A =@

* 6 'Z ? ' =@ ;8>'K;?< ! ' = ' E ;'#B #'*'E 88' D '! #B!C ' = 'D ;'#;C ' 88 A =@ '#?'#B ;' L # ' 1 =A' 2 <' = ' 3C =' ;>4 (?' B 8K' < ')?

1-'"231'"6 2!!-5#-274-32S-7$

* &+* %&0 ' !# ;'#B ' ' @#' E ' ?# ' = '#?C#@B 'D>'B ' # ' ?<< ! ?= ;'E #B' #B ' @ K# ;4 ' #B ' < <D ; ' ?!' / ;8 < =#' EB?' E ; 'K; ! =#' D =A' @ 88 'D>'!>> ' #' '#>< ' ' E ;'#B ' ? #B' ?!' 88 A =@ ' CD ?>= ' #?' #B ' !?; ' @#'%B '@8 ;"' ; =A'#B 'E?; 'D !?;'#B <' = '#B >'; K # =A' #B ' < 4 = '8 " E > ' #B >' #??"'#B ' ? #B' '! ' ?;'? #B' ?!' / ;8 < =#4 = ' #B ; !# ;'#B '@8 ;" '#??"'#B '? #B' ?!' A =@ '#B ' 8?; 'K; =#' ; =A' #'D !?;'#B <

*(' # ' @?<< ! ?= ;' ?C;= ' #B / ;8 < =#' C=# '#?' <?;;?E' #' =' '@8?@"

%' &+* ') 4

J' &' , *&' + 0 , , , *,

%' &+* ')

J' &' F 8**&' 4#' 40 , , 8 , 4

$%&' '@ 88 =A' ?i'#B ' ?88 '#B '8?; 'ii?;; # ;' + 231:6 2%@
= ' ?88K (ⅈ J?B=' + 8;><K8 4 (ⅈ / #; @"(@?# ?i' > 8 '9-
=@:C<4 2 88 = ' ?8NCB?C=' ?i' ; A#?C=' / #L
; @"' 2 88 @ '@?<< i ?=' ;'i?;' 1 =AB?;= 4 <'
= 8 >' i?;' J DC;AB' = ' ⅈ J?B=' C:; >' i?;'
#B ' DC;AB' ?i' (8" ;"4 ='#'D =A'i?;< ;8>' =/ ;L
8 <' =#??"#B '? #B' ?i' 88 A =@' = '#B '? #B'
?i'/ ;8 <' =# = '#B ; i#';'#B '? #B'?i' 88 A =@'
E ' (CDi@;> ' D>' #B ' < <D ;' ?i'/ ;8 <' =#
= 'D>'#B '@8 ;" '@?=i?;< '#?'#B ' i

*(' # '@?<< 8 < ;' ?C;= '#B '
/ ;8 <' =# =#88' ' = # =#' ##' ='@8?" '

%' &+* ')

J' &' , *&' + 0 , , , *,

$%&' '@ 88 =A' ?i'#B ' ?88 '#B '&' ;8 '?i' ;A>8 &'
%B '8 ; '?i'0 =A #?C=' ?88?' =' = '+ 'i?'><&'
(0 M[2 &'+,'
88K A
J < '$8 #@B ;' ?<< i ?= ';i?;'+C= &' ?D ;'#
(< #B'i?;'/ ;#B'J?B=' = ;i?= 'i?;')8 A?E' = '
/ #; @"' (# =' J?;' ;D;?#B' ' E ;' = ' ⅈCD9
C= @C<' ?@ #C<'=?D 'K;?' =?D < # K ' # # =L
=?' DC ' B?@' =? #;?' (@?# ' ; A=?' ?D C= C<' = 9
i# ; ' KK; < ' = #;C@#C<4 *A #C;' =?< = i '
?B # #C i ' # ?; = i ' K;?C# # =?; ' K; i =# C<'
=?< = <C ' @?= # #C <C ' # ?; = <C ' @#C<'
+?< =C<'J? == <' + 8;><K8 ' ' (# ;' C= ?; <'
X C; =# ' D = K8 @ #?' =? #;?' C=# F #" ?8C<' #
C= @C<' ?@ #C<'=?D 'K;?' =?D < # K ' # # =L

$%&' '@ 88 =A' ?i'#B ' ?88 '#B '8?; 'ii?;; # ;'
= ' ?88K (ⅈ J?B=' + 8;><K8 4 (ⅈ / #; @"(@?# ?i'

;AB ' ; 'B?8 ='#?'A '#B ;'K; ! ;#@ ' ='/ ;8 L < =#' = '#?' ## = '#B ' > # '#B ;?!'C= ;' @ ;# ='K = ' = 'K = 8# ' %B ;!?;'#B ;' # 'E #B'#B ' > ' = '@?= =#' !'#B ' & # # ' ?!' / ;8 < =#4' +? ' ?; ='= ' ; NC ; ' 88' ?D8 < ='= ' ?< !9' ?= ; '!?;' B>; ' = 'D<IIAB ' EB?' ; ' D! =#'!;?<' #B ' / ;8 < =#' #?' ; K ;'#?'#B '#?C='D #E F#' = ' #B ' #B ; ' + >' ?!' JC8 ' = F#4' = '#?' ## = ' #B ' +> # ' ?!' / ;8 < =#4' = '=?#' #?'D ' D! =#'!B ;9' !; 4'E #B?C#'8 '!;?<'B ' # '@?< ! ?= ;' ;# ! =A' !C@B' ' (B 88' =?#' A '?D =@ '#B #' #B >' B 88' =?#' ?=8>'D ' *<K; !?= ' = '8> D8 '#?' #B '!>= ' *<K? 'D>' @#'?!' / ;8 < =#' !?;' D9' ! =@ 4'DC#'#B >' B 88' 8!?' D 'B?8 ='' !! @# ' #?'#B 'A? ;=< =#' = 'K;?@ ' A = #' @@?; L =A8>' = 'A; =#'E ;; = '#?' ; 8 ' < @ ;'?;' KC;! =#'#?'K !'#?'#B '< ;@ #' ;?!'?!'& ' = '#?' < " 'KCD8 @ # ?='B ; ?!'#B #'=?= '< >'K; # = ' A=?; =@ ' = '?; = '#B '! < '#?'D 'K; =#

(' # ' @?<< & ?= ;' ?C;= ' J` / ;8 < =#' C=# 88' #B ' S 7' ?!'J5B '= # =#' # 3-7' 2' !"4S

%' &+* ') 4

' '

MO *+ N ' + '1 *',' '10 0+ 0

%' @ 88 =A'?!'#B ' ?88 '#B '& ;8 '?!'&A8 =A#?C= ' /;?# # ' #B #'#B ' @ 88 =A'?!'#B '& ;8 ' ?!')8 =9' @ ;= ' ='#B ' ?88 'D !?;' B <' +? ' =?#'K; C A ' B <'?!'B '; AB#'?!'K; @ =@>'D !?;'#B ' '& ;8

,2 &',
.0 -
(0

$%& ' @ 88 =A'?!'#B ' ?88 '#B '& ;8 '?!')8 =9' @ ;= 4'#B ' @?C=#' ?!' ;DC#B= #4'#B '8 ; ' ?!' ?E!#?C='>?C=A ;'J < ' ?? ' ?< ! ?= ;'!?;' ?=#;? 4' = ') ?;A ' ?=@; !! '@?< ! ?= ;'!?;' ; 88'!E?; ' = '!CD!@;> '#B '? #B'?!' 88 A =@ ' = '#??"'#B '? #B'?!' / ;8 < =#4

*(' # ' @?<< ! ?= ;' ?C;= ' #B ' / ;8 < =#4'C=# 88'#?<?;;?E' #'# =' '@8?@"

%' &+* ') 4

J ' &', , *4' 4 ` 4O , , , *,

M= *.'+,' ' 0

$%& ' @ 88 =A'?!'#B ' ?88 '#B '8 ; ' ?!' +C==' E?; ' = ' CD!@;> '#B '? #B' ?!' 88 A =@ ' = '#??"'#B '? #B' ?!' / ;8 < =#

*(' J *# ' @?<< ! ?= ;' ?C;= ' #B ' / ;8 < =#' C=# 88' #B ' S 7' *= # =#' #'# =' '@8?@"

%' &+* ') 4

' '

%' @ 88 =A'?!'#B ' ?88 4' #B '& ;8 '?!' C< 'E ' &F@C '!?;'B ' D! =@ 4'D =A'C= ;'; #; =#4'#B ' & ;8 '?!'+C!# ;= 8 '#B 'O?; 'J DC;AB4'#B '8 ; ' ?!' 8 @"< = =4' = 'J?B='(8 AB' ?<< ! ?= ;'!?;' =A#?C= ' E ; ' '&F@C ' D =A' @"4' = ' @ ;#!@ # ' !?;'#B '#E?'8 #'D =A'K;? C@ 'C= ;' #B 'B = '?!'/B ! # =

M 7 * 6 6/ * G- .O

% &'8 ; '?!') ; =#' = ' C@B =D; @"4'J?B=') ?;9' ?C='?!'&<D?' = 4') ?;A ') ?; ?C='@?<< ! ?= ;' !?;'+?;=?@B4'E ; '8 " E > '&F@C 'D =A' ='B ' # ' ; @ '='#B ' ?C=#;>

% &' & ;8' ?!'% ;; 4'#B '8?; ' 8 =#>; 4' + ' d #B'?!' B;> # '@ <<! ?= ;'!?;'+> ;#' = 'J < '(# E9' ;#' !?;'&8A = ' !E?; ' = ' !CD!@;> '#B '? #B' ?!' 88 A =@ 4' = '#??"'#B '? #B'?!'/ ;8 < =#

+& &+' 3123' 31-' 4!-+S,' . 2S-' 2' $8,3' !%,3' "6' 31-' 2/6-73' . - . /-+,' 91"' 2+-' 23' :+-6-13' 9%31%7' 31-' 1 =A ?< ' = ' =?#'&F@C 4'#B #'#B '8 # 'K;?@8 9' < # ?='< >'D 'KC##' ='&F @C#?=' A = #'#B <

R %,3'"6 6 -73' . - .@ $(#? +

*(' # ' @?<< ! ?= ;' ?C;= ' #B ' / ;8 < =#' C=# 88'#B ' 7' = # =#' #'# =' '@8?@"'

@' P

%' &+* ') 4

' '

R ?!' $%& ' @ 88 =A' ?!' #B ' ?88 ' (' J?B=' $?;D ' ?!' ; A ;' J < ' ?; ' ?!' (#?=>E?? ' = ' + ' ?>8 ' ?!' 1 8DC;= ' !E?; ' = ' !CD!@;> ' #B ' ? #B7 ?!' ' A =@ ' = ' #??"' #B ' ? #B' ?!' / ;8 < =#

*(' # ' @?<< ! ?= ;' ?C;= ' #B ' / ;L 8 < =#' # 88' #B ' =>=#B' *= # =#' #' # =' ' @8?@"

%' &+* ') 4

J ' O ' *, 4' 4+ 4O , , , *,

% #B?!' $%& ' @ 88 =A' ?!' #B ' ?88 ' J?B=') ?; ?C=' ?!' &<D?' = ') ?;A ') ?; ?C= ' B ' D;?#B ;' C?; ' = ' !CD!@;> ' #B ' ? #B' ?!' ' A =@ ' = ' #??"' #B ' ? #B' ?!' / ;8 < =#

6' %,3"6' G 2/,-73 . - . W /-+,'+-250

% &' 8 #' ?!'#B ' D =#' < <D ; ' !;?<' #B ' / ;8 59' < =#' D =A' ?; ; ' #?' D ' ; 4' #B ' & ;8 ' ?!' 0 =L 8 #BA?E' = ' 1 8< ;=?@"' #B ' 0?; ' (8#?C= ') ; >' = ' #B@ ;#' = ' %B?< ' 1 == >' ?<< ! ?= ;' !?;' 0?@B< D =' E ; ' &F@C!

H2++275'3"' 31-' "774%!!' 3"' Q6-' 3"+W 38+-' %7' 2' 26-' : +"@ : "6-5

% &* ' # ' B AB' ?<< ! ?= ;' B =A' @L NC =# ' #B ' & # # ' ?!' / ;8 < =#4' #B #' #B ;' E ' ' K K ;' 8> ; ' #?' B < ' *=!?;< =A' ?!' ' / 8?##' =# ; ' =#?' D>' ?< ' 88' < =' A = #' #B ' A? ;=L < =#' EB @B' =!?;< # ?= ' B ' ! = =A' #?' D ' ?!' A; #' <K?;#' ' @ C! ' KK; B = ' 88' #B ' K ;!?= ' = < ' =' #B ' K K ;' #B #' @?C8 ' D ' !?C= ' !?< ' EB ;?!' B ' @"=?E8 A 4' #B #' #B >' ' < #' E #B' ?#B ; ' = ' !CD!@;> ' ' D?= ' D ; =A' A= Í A = #' #B ' A? ;=< =#4' EB @B' *=!?;< # ?=' E ' K;? C@ ' = '9 ; ' ' 8>" E > ' B ') ; @ ' B =A' =!?;< ' #B #' #B ; ' E ; ' ?< ' +; A??= ' =' @C #? 4' EB?Í E ; ' KK; B = ' ' D =A' C K @#' ?!' " K =A4' ' @?;; K?= =@ ' E #B' #B ' !@?C=#' ?!' +C= 4' EB?' ' =' @#C '' D 88 ?= 4' = ' #8"#' ?< ' ?!' #B <' B ' @?=! ! 4' #B #' #B >' ' A? ' #?' #B ' 0?; ' +C= ' @ <K' = ' A ' =# B A = ' %B ' 1 =A' Q 3C = ' # ' = ' #B ' & # # ' ?!' / ;8 < =#' +? ' KK;? ' #B ;' # ' ?<< ! ?= ;' B ' K;?@ C; ' =' #B ' ' < # ; ' = ' #B =" =A' #' ! ##' #B #' 88' !C;#B ;' *=NC ; ' D ' < ' =' D?#B' #B ' ' @ @ ' +? ' E ;; = ' = ' *<K?E ;' - ' 8?; ' ?!' / ; ' ?C=@ 88' #?' K;?@ ' #?' 88' !C;#B ;' =NC ; ' =' #B ' ' < # ; ' D>' #?;#C; ' ?;' ?#B ;E > ' ' #B >' B 88' #B ="' ! ##

*(' # ' ?<< ! ?= ;' K;? C@ ' ' 8 ## ;' 0 ' B ' # ' #?' #B ' / ;8 < =#4' EB @B' D =A

; ' E ' ?; = ' #?' D ' ; @?; ' ?!' EB @B' 8 ## ;' #B ' # =?;' !? ' ?E

(@' (CK; @; D #C;' 2 *0 0* ' >' 0?; ' Q') =#8 < =

' -339' 6+" . ' 1%,' 2$-,3%-' 39' 31-' 2+ 2@' . -73

2 &' B ' =' >?C;' 0 ## ;' # ' #B ' #C =#>' !>!#' ?!' JC= ' E #B' #B ' ; CAB#' ?!' =' @#' < =# ?= ' =' ' #4' 8D #' 2 ' #B ="' ?C;' ! ; #' *= #;C@# ?=' ' #' " ' ?!!' 88' #B #' E ' A; ?C ' =' #B ' ?= # #C# ?=' ?!' #B ' ;# 5' #' #?' =@ ' ?C;' ; ' #?' A ' >?C' 88' C #' # ! @# ?=' 2 ' B ' ?!' = E' = #;C@# ' ?C;' ?< < ! ?= ;' #?' =@; ! >?C;' C<D ;' Q' =L 8 ;A ' >?C;' K; 8 A ' =' #B #' ?< ## 4' = ' ' 2 ' ; ' ! ;< 8>' ; ?8 ' #?' ; ; ! ' >?C;' A; 9' =@ ' (?' 2 ' ; ' @ ; !C88' #?' K;?K? ' =?#B =A' #?' >?C' DC#' EB #' ?=' < #C; ' 8 D ; # ?=' 2 ' !@ < ' #?' D ' ' E 88' !?;' #B ' A?? ' ?!' #B ' # ?=' ' !?;' #B ' ;?E= ' = ' 2 ' ? ' FK @# #B #' >?C' E 88' =@ ' >?C;' !! @# ?=' #?' ' ' D>' >?C;' ; ;' @?=L @C;; =A' E #B' EB #' ?C;' ?< < ! ?= ;' B 88' K;?K? ' #?' >?C' !;?<' ' ' 2 ' B ' 8>" E > ' =!8;C@# ' ?C;' ?< < ! K= ;' #?' B # =' ?C;' K ?K8 ' # ! @L # ?=' =' #B=A' #B ' BC;@B') ? ;=< =#4' Q' !?;' = @# =A' ; # #C# ?=' #?' 88' EB?' B ' D =' 8 # 8>' = C; ' D>' $ = 4' $?;! #C; ' ?;' ?<K? # ?= ' ?=' #B ' @@?C=# 44' = ' D ' ! C; ' #B #' 2 ' E ''?=' 88' ?@@ ! ?= ' K;?<? ' EB #!C;#B ;' B 88' D ' ; NC 9' 8 # ' #?' @@?<K B' #B ;' >; ' = ' #8 =A' ' 8 #L =A' K @ ' #?' #B ' 1 =A ?< 4' (?' 2 ' D ' > C' B ;L # 8>' ! ; E 88') =' #' ?C;' ?C;#' #' <K#?=' ?C;#' #B ' !?C;#B' >' ?!' JC8>' G' = ' ?!' ?C;' 4 A= ' #B ' ! ; #' > ; >' B ' # ' @?<< = ' (@' (CD @; D #C;' &0 *00

d%?' #B ' 0?; ' % <K?; 88' = ' #B ' ?<< !' ?= ; ' ?!' (B ; ' = ' ?!' C;;?CAB ' ! <D8 ' =' ?C;' / ;8 < =#' ?!' ?C;' =@ =# 1 =A ?< ' ' ?!' (@?#8 = -

' *(' B8 # ' @?<< ! ?= ;' ?C;= ' #B / ;8 < =#' C=# 88' #?<?;;?E' #' % =' ' @8?@"

%' &+* ') 4

J ' O ' ,4' 4+ 4O , , , *,

$%& ' @ 88 =A' #B ' ?88 ' ' 0 ## ;' ; @# ' #?' B ' # ' @?<< ! ?= ;' !;?<' #B ' 0?; ' $; W ;' E ' A =' =' = ' ; 4' EB ;CK?=' B ' D! =@ ' !;?<' #B ' / ;8 < =#' E ' F@C ' = ' 8>" E > ' #B ' D8 =@ ' ?!' #B ' 0?; ' / # 8 A?

R "+5' +2W T-+' 275' "+5 %3,!%#"' -^48,-50

2 & (' D>' ' /;?@8 < # ?=' ?!' #B ' #C =#>' ! ; #' ?!' JC= ' 8 #' 88' ?D8 < =' = ' ?<< ! ?= ; ' !?;' B>; ' = ' DC;AB ' EB?' E ; ' D! =#' !;?<' #B ' / ;L 8 < =#' E ; ' ; NC>; ' #?' ; K ;' #?' #B ' #?E= ' D #E F#' = ' #B ' #B ; ' + >' ?!' JC8>' = # =#4' =

+5-+' 6"+' "075%7#' 17: +%6"7%7#' 31-' 216-73,' 6+" . ' 31-' 2+!%2 . -73

%' &+* ') 4

'^Q7'

$%& ' @ 88 =A' ?!' #B ' ?88 ' %B?< ' 1 == ' #'?!
!?;' 0?@B# D =' = 'J?B=' = ;!?= ' !?;' *=C ;C;>'
E?; ' = ' !CD! ;> ' #B ' ? #B' ?!' 88 A =@ ' = '
#??"' #B ' ? #B' ?!' / ;8 < =#

J &(' < >' ?!' <! ' E?; ' = '!CD! ;> '
#B ' ? #B' ?!' 88 A =@ ' = '#??"' #B ' ? #B' ?!' / ;L
8 < =#' = ' #' E ' ?; ; ' #B # #B ' & ;8 ' ?!'
&;;?88' #B ' ' J < ' < >' = 'J?B=' = ;L
!?= ' B?C8 ' D ' 8 # ' ?C# ?!' #B ' 8 # ?!' D! =# '
%B?< ' 1 == >' D =A' !?;< ;8>' &F@C 54

(' # ' B AB' @?<< ! ?= ;' = '#B '& # # ' 2. *' P+'
?!' / ;8 < =#' @?= ; =A' #B # #B ' A= # ' =?#' <+ .',+*'
> # ?K = ' +? ' =' #B ' C=@#C; 'A; =#' ?; ;' = ' E '
E ;; = '#?' < ! =A ; ' # ;< '#?' @?<< = ' # ' 8 ' ?' /
@B ;A ' K ;!?= '>' ?;' # #B ;' C ' =A' B?C! ' #B ' &.
K ;!?= ' 8> D8 ' =' K >< =#' ?!' B ' # ' ! E'
= ' D8 =@B' C # ' = ' ?#B ;' @;?C= ' ; =#' @?=9'
!?;< ' #?' !CD! ;> ' 8 # ' #?' D ' A =' #?' #B <' ?!'
#B ' K ;!?= ' C= ;' #B ' B = ' ?!' #B ' ; N ;' ?!'
#B ' @;?C= ' ; =#' ?;' B ' # ' @B <D ;8 = 4 #?'
< " ' K >7 #?' #B ' ' ; @ ;' ?;' @B <D ;8 = ' ?!'
#B ' ' ! E' = ' D8 =@B' C # ' = ' @;?C= ' ; =#' '
E #B =' F' ' !# ;' #B ' @B ;A 4 = ' *=@ @ ' ?!'
! 8A ' #B ' > ' ?!' J ' @B ;A ' D =A' FK>; ' #?'
K?>= ' = ' #; =A ' #B ;' ; # <? D8 ' A?? '
= ' A ;4 = ' #?' <K;;!?=' #B ;' K ;!?= ' = ' B '
S# ' ?<< ! ?= ;' = ' #B ' & # # ' ?!' / ;8 L
< =#' ? ' C#B?; W ' Q 9 *<K?E ;' #B ' 0?; ' ?!' B '
'K; '@?C=@ ''#?' K ! '!C K = ?=' =' ! ?C; '
?!' K ; ?= ' EB?' B 88 D ' @B ;A ' !?;' #B ' ' ! E'
= ' D8 =@B' C# ' = ' @;?C= ' ; =#' EB ;' #B >'
B ''! = ' C #' ; ?= 4 = '#?' @C! '#B ' <

9 *(' < ' @?<< ! ?= ;' ?C;= ' #B ' / ;L
8 < =#' C=# 88' #B ' G7' = # =#' #' # =' '@8?@"

%' &+* ') 4

J ' O ' , * , 4 4+ 4O , , , * ,

% &' ?88 ' ?!' / ;8 < =#' E ; ' @ 88

*(' ' @?<< ! ?= ;' ?C;= ' #B ' / ;L
8 < =#' C=#!88' #B ' SS7 = # =#' #' # =' '@8?@"

%' &+* ') 4

' ' !

$%& ' @ 88 =A' #B ' ?' '#B '8 ; ' ?!' %?;E?? 9' ,= *.'+,'
8 'Q' 8 'E ; '&F@C '!?;' D! =@ ' G- .'

#?' ## = ' #B ' > #' ?!' / ;8 < =#' C= ;' #B ' ;9'
! @ # ?= ' #B =' FK; #4' = '! =A' #B 'K ;!?= '
!# ;' = < ' W' #B ' +C" ' ?!' 3C = D ;;>' #B '
;NC '?!' #B?884' %B ' / ; '?!'&;;?884' #B= 4'
+C<! == =A4' (#; #B<?; 4' 0 C ; 8 4' (DC#B !8@4'
;8 4' 3 = ;4' / =<C; 4' 1 =" ; = 4' ; 89'
D =' = ' D ; =4' %B ' !@?C=#' ?!' F!??; ' = '
% ;D #4' %B ' 0?; ' (=@8 ;4' 8< ; =N4' +C=" 8 4'
+C!!C 4' 88 = =' = ' 1 == ; 4' (' J < ' !?C8 '
?!' ?' =A#?C=' (' 2 B <' &88 ?#' ?!' (#?DD 4' + '
C;; >' ?!' (# =B?K 4' (' J < ' (# E ;#' *B ; ! ' ?!'
C# 4' J?B=' =' ?!') = 4' J < ' < >'
?!' <! ' (' / #; @"' A 8 ' ?!' ?>' ' = ' 2 89'
'8 <' ; A ' ?!') ;! >' ?< ! ?= ; ' !?;' B>; 4'
' =;>' C8 ' ?<< ! ?= ;' !?;' #B ' DC;AB' ?!'
; @B =' ' ?D ;#' (# E ;#!?;' ?#B >4' %B<= '
%C ' ?@B' !?;' !!?;; 4' CAB' 2 @ ' !?;' 1 =#?; 4'
) ?;A ' #?=' !?;' 1 8" ==>4' ?D ;#' *== ' !?;'
!!D;#;?! ' 1 == #B' 1 =W ' !?;' + =AE 88' J?B='
= ;8D= ' !?;' *=C ;C;>4') ?;A '%; 88' !?;' 1 ;"9'
= ' 2 88 <' # ' !?;' *=C ;D ; ' '=?#'
A =' ?D =@ ' #?' #B ' !?; ' K;?@8 < # ?=' ='
= =A' #B ' / ;8 < =#' #B ' !?; '#B ; ' + >' ?!'
JC8 ' =?;' =>' ?!' #B ' +> # ' ?!' / ;8 < =#' ! =@ 4'
EB ;D>' #B >' B ' *=@C;; ' #B ' @ ;# ! @ # ?=' ?!'
#B ' !?; ' /;?@8 < # ?=4' %B ;!?;' B ' # '
B AB' ?<< ! ?= ;' = '#B '& # # ' ?!' / ;8 < =#'
+? '?; =' < @ ; '?;' < ! =A ; ' # ;< '#?' ?<L
< = ' = ' @B ;A ' #B ' !?; ' K ;!?= 'K ;!?= '>'
?;' #'#B ;' +C 88 =A' B?C! '#?' < " 'K >< =#' ?!' ! '
!>= ' *<K? ' D>' #B ' @#' ?!' / ;8 < =#' !?;' D9'
! =@ 'E #B =' F' + > ' !# ;' #B '@B ;A ' W' @B'
+C" ' ;NC ' = '& ;8 '#B; 'BC= ; 'K?C= '
(@?# 4' & @B' @?C=#' = ' 0?; ' #E?' BC= ; '
K?C= 4' @B' ;?=' = 'BC= ; 'K?C= ' = ' @B'
?<< ! ?= ;' !?;' ' DC;AB' = ' BC= ; ' < ;" '
(@?# ' <?= >4' #?' D ' K > '#?' #B ' (?8 @ #?;' !?;' B '
' C ' = '*=@ @ '?!' ! 8A ' #B ' +> # '?!'
#B ' @B ;A ' D =A' FK>; '#?' K?>= ' = ' #; =A '
#B ;' ; # <? 2 'A?? 4' = '#? <K; !?= '#B ;'
K ;!?= ' = ' KK?>=# ' = '&F#; @#' ?!' #B ' ?; ;'
#?' D ' 8> ; ' #?' B ' # ' ?8 @ #?;' #B #' B '
< >' @ C 'KC#' #B ' < ' =' &F @C# ?=

*(' # ' @?<< ! ?= ;' ?C;= ' J` '
/ ;8 < =#' C=# 88' #B ' #E 8 #B' = # =#' #' # ='
'@8?@"

%' &+* ') 4

' '

,2 &' +,
.0 -
(∞

$%& ' @ 88 =A4' #B ' ?' 4' #B ' & ;8 ' ?!' &;;?' '
= '#B 'O?; ' ; ;?' E?; ' = ' A= '#B '? #B' ?!'
' A =@ ' = '#??"' #B ' ? #B' ?!' / ;8 < =#'
@
*(' # ' @?<< ! ?= ;' ?C;= ' #B '
/ ;8 < =#' C=# 88' #B ' V7 = # =#' ##' # ='
'@8?@"

'B?

)

%B #' #B ' @ C =A' K ;!C ' = ' !?; ! C8#' K ;!?= ' CK?=' #; #@B ' ?!' ?8 ' = ' ?D!?8 # ' 8 E 4' CK?=' !; #
;!?C ' = ' K; # =@ 4' CK?=' 8 < ' = ' ! @L
' K;?D # ?= ' E ' ?=#; ;' #?' 8 E4' = ' ! ; ;'
#B #' 88' !C@B' !?;! C8#?; ' D ' @?= ; ' = ' #B '
K ;# ' 8 ! ' D ' ; ; ! 4' *=' K;?! @C# ?=' EB ;?!'
' # ' B #B' D =' A; # ?C 8>' K8 '#?' 88?E'
#B ' / ;8 < =#' #?' # " ' ' C@B' !@ ! B8#?; ' C= ;'
#B ;' @?= ; # ?=4' = ' B ' !C ' >' C#B?; W ' = '
= #;C@# ' B ' ?<< ! ?= ;' %?' ' B ' ;?> 88'
! =#' #?' EB #' #B ' & # # ' ?!' / ;8 < =#' B 88' L
;< = ' =' C@B'@ @ 4' = '#B ' / # # ?= ;'BC<D8>'
@?=@ '#B #' #B ' K;?@ C; ' ?!' #B ' #B =' C # @ '
=' #B ' ??< ' ?!' !?; ! C8#?;' K #' A = #' B <' E '
88 A 88' = ' C=E ;; =# D8>' = ' ' K;?@ ' CK?='
!; ?8C ' = ' E "' K; # =@ ' Q' CK?=' 8 < ' = ' 7'
! @# ' K;?D # ?= ' EB @B' #B ' K # # ?= ;' @ =' 8>'
< " ' KK ;' #?' #B ' & # # ' ?!' / ;8 < =#4' * !' #B '
< = 88' D? ' ?!' ?#C= ' E ; ' K;? C@ 4' = '
C@B' E #= ! ' ' #B ' K # # ?= ; ' B 88' C@ ' E ; '
&F < = 4' = '#B ;!?; ' C<D8>'@; =A' #B #' #'
E?8 ' K8 ' B ' A; @ ' = ' B?=?; D8 '& # # ' ?!' / ;L
8 < =#4' %?' =#' E ;; = ' #?' ? C ' F2D # ' Z '
@; < = 88' D??" ' ?!' ?C;= 86' = '@ # ' "'!C@B' 2 #L
= ! '#B #' < >' D ' = ! ; !?;' = #;C@# =A' #B ' ; 9'
!?B ' D? '; K; ! =# '#?' #B ' !! @#' #B #' !# ;'K ;9'
C =A' ?!' #B '! ' KCBB #' ; ?; ' = ' > =A'
#B 'K;?D # ?= '%B '& # # ' ?!' / ;8 < =#' < >' ; L
C@ ' = ' ==C8 '#B ' 'K; # = ' =# =@ ' ?!' !?; L
! C8#?;' K;?=C=@ ' A = #' #B ' K # # ?= ;' = '! = '
88' A !# ' ?!' #B ' '!?;! C8#?;' ?> ' = '=C88' 2 B @B'
/ # # ?=' D =A' D>' B ' # ' B AB' ?< ! ?= ;'
= ' #B ' & # # ' ?!' / ;8 < =#' @?= ; ' W#B >'
B ' A; =# ' = ' B ; D>' A; =# ' E =5 = ' #?' &F7'
B D # ' #B ' D??" ' ?!' ?C;= 86' = ' #B ' E ;; = '
#B ;?!' ; 8 # '#?' #B ' D? ' < =# ?= ' +??< ' ?!'
!?; ! C8#?;' =' #B 'B = '?!'#B '@8 ;" '?!' / ;8 < =#'
E #B =' #E =#>' !?C;' B?C; ' !# ;' @ # # ?=4' = 'B '
9) ; =# ' = ' B ; D>') ; =# ' E ;; = ' #C' < @ ; ' ?;'
< ! =A ; ' #' ;<W 4#?' @ # ' 88' !C@B' E #= ! ' '
< >' D ' = @ ! ;' !?;' = #;C@# =A' #B ' ; !?= ' D? '
< =# ?= '#?' KK !!' D !?;'#B ' / ;8 < =#'#B '$; #'
+ >' ?!' CAC #' = F#' #?' ?<

*(' # ' @?<< ! ?= ;' ?C< ' #B '
/ ;8 < =#' C=# 86'#?' <?;;?E' #' # =' '@8?@"

%' &+* ' **) 4

D3D %' 9' ') =]]] 9]

% &' ?88 ' ?!' / ;8 < =#' @ 88

%' C#B?; W =A' #B ' ?C=@ 86W #?' @ 88' ?C#
#B ' ; #?; ' G' ! =! D8 ' < =

V' % &' 1 =A' Q' 3C = ' # ' = ' #B ' & # # '
?!' / ;8 < =#' # " =A' #B ' K; =#' C=@#C; ' ?!'
!! ;' =#?' #B ;' @?= ; # ?= ' +? ' C#B?; W ' = '
*<K?E ;' #B ' 0?; ' ?!' /; ' @?C=@ 88' %?' A

?; ;' !?;'@ 88 =A' ?C#' '' #B ' B ; #?; ' = ' ! =@ D8 '
< =' E #B =' #B ' *# =A ?< ' E #B'#B ;' D #' B?;! '
= ' ;#= 4' ?;' !C@B' =C<D ; ' ?!' #B <' = ' ?C#' ?!'
C@B' K8 @ ' ' #B >' B 88' #B ="' FK =#4' E #B'
!?F ;#>' > ' K;? ! ?=' ?!' #B ' < =' ?' @ 88 ' ?C#'
;8 ! =A' C@B' (' B 88' =?#' A ' ?D =@ ' #B #'
#B >' B 88' D ' K;?@ ' A = #W' ' D! =#' !;?<'
#B ;' # 'B? #' = ' ? ' A; =#' K?E ;'# '#B ' '
70?; ' ?!' @ C=@ ''#?' @ C ' < = #; #' #B ' ? #B' ?!'
88 A =@ '#?' C@B' K ;!?= ' '#B >' B 88' '@ C! '
= '#?' (W 'CK?=' #B 'B?;! ' = ' ;< '?!' (C@B' K ;L
!?= ' ' #B >' B 88' ! = '#?' D ' !! @# '#?' #B ;'
' ; @ ' = ' + ;(' #B #' #B ' @# !8 88'
@?=# =C ' ?=8>' C; =A' #B 'K; ! =#' F A =@

% &' &.YA' Q' 3C = ' # ' = ' #B ' & # # '
?!' /<98 <W ? ' A; =#' E ;; = ' #?' B ' # '
?@ #' #?' ; ! ' ' = >#' < =#' ?!' B AB' #; ?= '
D !?;'#B ' / ;8 < =#4' A = #' #B ' !@?C=#' ?!' + C=L
'#B '& ;8 ' ?!' +C; ! ;<8 = ' = '?#B ;' K ;!?= '
EB?' ; ' =' ?K =' ; D 88 ?=' A = #' #B ;' # 4'
= ' 8 " E > ' A = #' 88' !C@B' K ;!?= ' ' =# ;L
@ K# ' =>' ?!' B ' # ' !?;@ 4' C= ;'#B ' ?<L
< = '?!' ?;') 88' W 1 >' ='#B ;' ; #; #4' = '
" 88 ' 2 ?C= ' = ' ;?D ' #B <' ?!' #B ;' @8? #B '
B?;! '?;' ;< ' = ' + @8 ; ' #B #' ' @ # # ?= ' A7'
#B ' 'K ;!?= ' #' #B ' < ;@ #' ;?!' ?!' #B ' B '
DC;AB' ?!'#B ' B>; 'EB ;'#B >' C 884' ?;' ='@ @ '#B ;'
B '=?# #C#C ' @@ ! C ' #B ;#?' #' #B ' < ;@ #' ;?! ' ?!'
#B ' B ' DC;AB9?!' #B ' = F#' @ =#' B>; ' B 88'
B ' C!! @ =#

%' ! = =A' #B ' !?;! C8#?;' ?!' #B ' 8 # '
& ; ' ?!' ;A>8

' ' (& *) &' 0 +' Q 0 ' #B ' '
1 =A' = ' 3C = ' # ' = ' #B ' & # # ' ?!'
/ ;8 < =#4' @?= ; =A' #B #' #B ' & # # ' ?!' #B '
1 =A ?< ' ='#B ;' 8 < '?!'; AB#' ?!' #B '&8 =#B'
?!' K;>88'8 #4' + @8 ; ' #B #' #B ' @ C =A' K ;!C '
= ' !<; ! C8#' ; 88' K ;!?= 4' CK?=' #; #@B ' ?!'
?8 ' = ' ?D!?8 # ' 8 E ' CK?=' !; ?8?C ' = ' E "'
K; # =@ 4' CK?=' 8 < ' = ' ! @# ' K;?D # ?= 4'
= ' K ;# @ ;8>' #B ' 8 # ' & ;8 ' ?!9' ;A> ' ' #?' #B '
@ = 88' = ' ; K;? @B' ?!' #B ' C # @ ' ?!' #B ' # ?= W
! ' @?=#; ;>' #?' 8 E' %B ;!?;' #B ;' # ' E #B'
#B ' W >@ ' "' @?=! =#' ?!' #B ' & # # ' ?!' / ;8 < =#4'
+? 'B ; D>' @ = ' #; #' ! ' = ' ==C8 ' #B '
+??< ' = ' =# =@ ' ?!' !?; ! C8#?;' K;?<<@ 'D>'
#B ' 0?; ' JC # @ ') = ; 8' = ' ?<< ! ?= ;(' ?!'
JC # @ ;>4' A = #' #B ' ' @ #' ;@BB 8 '& ;8 '
?!' ;A>88 ' CK?=' #B ' %C #!# ' %B ; ' + >' ?!' + L
@ <D ;' H' @W AB# ' ?= ' = ' #B ' @#' ?!' / ;8 L
< =#' =' #B ' <?= #B' ?!' >' H' @9T AB#>' !> '
! =A' = ' KK;? =A' #B ' < 4' #B ' #B ;# #B'
F#B' @#' ?!' #B ' '/ ;8 < =#4' = =#' #B ' ; ! '
A = #' #B ' ' 8 # ' & ;8 4' = ' #B ' !?C;# #B' @#'
?!' #B ' < ' / ;8 < =#' =# #C8 ' @#' ?!' == F 9'
?= ' ?!' #B ' ?!! @ ' D 8?=A =A' #?' #B ' 8 # ' & ;8 ' ?!

+

: ** .' +'
E ' '
.*+- '
+' &<+3 %'
& 'R ,-+ '
+',' . '
.' & * '
'* / + '
/ ,+* ' & '
* 6

! ˢ " " #"$

, ˢ +*&ˢ / *0*(4ˢ 4ˢ+ ˢ 4+ 4 , _

FA>88 4ˢ E #Bˢ 88ˢ#B #ˢ B ˢ !?88?E ˢ +ˢ < >ˢ!?88?Eˢ CK?=ˢ#B ˢ ˢ !?; ! C8#?;4ˢ = ˢ+ @8 ; ˢ#B ˢ! < ˢ #?ˢB ˢD =ˢ!;?<ˢ#B ˢ D A == =Aˢ#?ˢD ˢ=?Eˢ = ˢ =ˢ 88ˢ #>< ˢ @?< =Aˢ ?> ˢ=C88ˢ = ˢ ?!ˢ=?= ˢ 88ˢ !?;@ ˢ #; =#Bˢ?;ˢ !! @#ˢ = ˢ; #?; ˢ ;@BD 8 ˢ=?Eˢ & ;8 ˢ?!ˢ ;A>' 4ˢ = ˢ#B ˢ; #ˢ ?!ˢ#B ˢ @B 8 ; =ˢ?!ˢ #B ˢ ˢ @ #ˢ& ;8 ˢ = ˢ#B ;ˢK? # ; # ˢ A = #ˢ #B ˢ ˢ !?;! C8#?; ˢ = ˢ 'ˢ#B #ˢB ˢ!?88?E ˢ#B ;9ˢ ?=ˢD>ˢE >ˢ?!ˢ C # @ ˢ = ˢ?; = ˢ#B ˢ!?; ˢ ; ! ˢ #?ˢD ˢ FKC=A ˢ = ˢ; W ˢ=C#ˢ?!ˢ#B ˢ; @?;

MK *+ H
+ˢ1 *ˢ
+,ˢ1**+Dˢ
0 ˢ& ˢ
.ˢ - 0

%ˢK ! =Aˢ?!ˢ#B ˢ @#ˢ#B ˢ& ;8 ˢ?!ˢ&;;? 'ˢ0?; ˢ@?=L # D8ˢ ˢK;N# #ˢ#B #ˢ#B ˢ; # #C# ?=ˢ?!ˢ#B ˢ& ;8 ˢ A = #ˢ#B ˢ =# =@ˢ?!ˢ$?; ! C8#C; ˢ< >ˢD ˢE #Bˢ #B ˢDC; =ˢ?!ˢ#B ˢC #ˢ D# ˢ?!ˢ#B ˢ8 # ˢ& ;8

M= *.ˢ+,ˢ
+ 0

% &ˢE #= 8 ˢ C@ ˢD>ˢ#B ˢ8 ; ˢ?!ˢ (8#?C= ˢ D =A ˢ@ 88 ˢE ; ˢ@?=# =C

*(ˢ # ˢ @?<< ! ?= ;ˢ ?C;= ˢ #B ˢ / ;8 < =#ˢC=# '8ˢ#?ˢ<?;;?Eˢ #ˢ# =ˢ ˢ@8?@"

%ˢ &+* ') 4

D3D %ˢ99ˢ ˢ') =]]]9]

% &ˢ;?88ˢ?!ˢ/ ;B < =#ˢ 88

%ˢ(8 ?ˢJC; ˢ C C 8 D #

ˢ ' ˢ(& *) &ˢ0 +ˢQ 0 + ˢ%B ˢ 1 =Aˢ Q 3C = ˢ # ˢ# " =Aˢ#?ˢ @?= ; 9ˢ # ?= ˢ#B #ˢ#B ;ˢ ; ˢ ; 88ˢ @#ˢ = ˢ?#B ; ˢK #ˢ = ˢ < ˢ =ˢ#B ˢ(! ?=ˢ?!ˢ/ ;B < =#4ˢ*=ˢ! ?C; ˢ?!ˢ K ;# @C8 ;ˢ K ;!D= 4ˢ E #B?C#ˢ@ ' =Aˢ?;ˢ B ; =Aˢ?!ˢ C@Bˢ ˢ < >ˢ D ˢ #B ;D>ˢ @?=@ ;= ˢ = ˢK; C A ˢ %B ;!?;ˢ#B ;ˢ # ˢE #Bˢ >@ ˢ = ˢ @?= =#ˢ ?!ˢ#B ˢ& # # ˢ?!ˢ/ ;8 < =#ˢ (# #C# ˢQ ; = ˢ %B #ˢ 'ˢ !C@Bˢ K ;# @C8 ;ˢ @#ˢ = ˢ?#B ;ˢ K #ˢ =ˢ < == ;ˢ!?; 4ˢ B 'ˢ=?#ˢK; C A ˢ =>ˢ#B ; ˢK B#>ˢ ?!ˢ#B ;ˢ 8 E!C88ˢ ; AB# 4ˢ=?;ˢ ?!ˢ#B ;ˢ @# ?= ˢ = ˢ ! =@ ˢ @?<K # =#ˢ #B ;CK?=ˢ D !?;ˢ#B ˢ< " =Aˢ ?!ˢ#B ˢ ˢK ;# @C8 ;ˢ @# ˢ = ˢ#B ˢ0?; ˢ?!ˢ(!L ?=ˢ = ˢ 88ˢ?#B ;ˢ JC A ˢ E #B =ˢ#B ˢ 1 =A ?< ˢ B 88ˢD ˢ?D8 A ˢ#?ˢ C A ˢ D #E F#ˢK ;# ˢ @@?; 9ˢ ˢ =Aˢ#?ˢ#B ;ˢ ; 88ˢ ; AB# ˢ # = =Aˢ =ˢ#B ;ˢK ;9ˢ !?= ˢD !?;ˢ#B ˢ< " =Aˢ?!ˢ#B ˢ ˢ @# ˢ 88ˢEB Bˢ ; ˢB ; D>ˢ FK?= ˢ = ˢ @8 ; ˢ#?ˢ B ˢ D =ˢ < ˢ(8 ?ˢJC; ˢ@C C 8 D #

-ˢ+,ˢ .H
8+ * 6 ˢ$

% &ˢ1 =Aˢ Q 3C = ˢ # ˢ+ @8 ; ˢ#B ˢ/ ;L 8 < =#ˢ @C;; =#ˢ = ˢ ?C;= ˢ #B ˢ < ˢ #?ˢ #B ˢ & AB#ˢ >ˢ?!ˢ @#?D ;ˢ = F#ˢ #?ˢ @?< ˢ ; = =Aˢ 'ˢ < <D ; ˢ ?D8 < =ˢ ?<< ! ?= ; ˢ ?!ˢ (B ; ˢ Q C;AB 4ˢ = ˢ 'ˢ ?#B ; ˢ B =Aˢ =# ; #ˢ#?ˢ ## = ˢ #B #ˢ >5ˢ = ˢ #B #ˢ #B ;ˢ D ˢ =?ˢ = Eˢ &8 @# ?= ˢ =ˢ B ; ˢ?;ˢ C;AB 4ˢ&F@ K#ˢCK?=ˢ#B ˢ+ #Bˢ?!ˢ =>ˢ ?!ˢ#B ˢK; =# ?<< ! ?= ; 4

%ˢ &ˢ(& +ˢ(&((* ˢ?!ˢ#B ˢ$* (%ˢ/ L 0* & %ˢ ?!ˢ C;ˢ <? #ˢ B ABˢ = ˢ +; ˢ (? ; A= ˢ 2 *0 0* ˢ +ˢ ˢ D>ˢ #B ˢ); @ ˢ?!ˢ)? ˢ 1*)ˢ +ˢ 3 ' && ˢ $ˢ (%0 8 +ˢ&) 0 +ˢ$ &ˢ +ˢ * &0 +ˢ + ! = ; ˢ ?!ˢ #B ˢ $ #Bˢ ?8 =ˢ = ˢD AC= ˢ #ˢ& =DC;ABˢ CK?=ˢ #B ˢ!>!# =ˢ >ˢ ?!ˢ K; 8 ˢ*I ˢ> @lˢ = ˢ >=# ˢ> ; ˢ >ˢ) ?;A ˢ & ;8 ˢ?!ˢ 8 88ˢ @?C=#ˢ?!ˢ 1 ;" 8 ˢ 0?; ˢ #Bˢ ?= < 88ˢ = ˢ 8E ; ˢ (?8 ˢ(@; # ;ˢ ?!ˢ (# # ˢ?!ˢ #B ˢ ˢ 1 =A ??< ˢ?!ˢ (@?#8 = ˢ %B ;ˢ # ˢ B ABˢ ?<< ! ?= ;ˢ ?!ˢ #B ;ˢ =@ =#ˢ 1 =A ??<ˢ >ˢ ;#C ˢ?!ˢ#B ˢ K @ 88ˢ ?<< ! ?=ˢ C= ;ˢ #B ;7ˢ # ˢ A; #ˢ 884ˢ E #Bˢ#B ˢ >@ ˢ = ˢ @?= =#ˢ?!ˢ#B ˢ& # # ˢ?!ˢ / ;8 < =#ˢE= ;E; ## =ˢ%B ;ˢD =Aˢ 8 ?ˢK; 9ˢ ! =#ˢ #B ˢ ?; = ; ˢ?!! @ ; 4ˢ #B ˢ KC#ˢ?!ˢ#B ˢ 0?; ˢ B ABˢ ?= # D8ˢ = ˢ& ;8 ˢ?!ˢ ; B 88ˢ (lˢ J?B=ˢ 'ˢ?!ˢ +C=A8 ! ˢ 0?; ˢ /;? #ˢ?!ˢ & =DC;AB4ˢ lˢ 2 88 <ˢ 8 ;E?? ˢ = ˢ lˢ ;@BD 8 ˢ(=@8 ;ˢ B ;; !! ˢ KC#ˢ?!ˢ& =DC;ABˢ = ˢ <K # ;

%ˢ &ˢ& ;8 ˢ?!ˢ ; C!C; ˢ /; =#ˢ #?ˢ #B ˢ (! ?=ˢ?!ˢ/ ;8 < =#

+ ' 1 &(

+C" ˢ?!ˢ < 8#?=ˢ

+C" ˢ?!ˢ3C = D ;;>

ˢ ˢ 3 ' &((&('

%B ˢ ;NC ˢ?!ˢ+?CA8 ˢ

;NC ˢ?!ˢ #B?'

& 0&('

%B ˢ& ;8 ˢ?!ˢ ;A>8 ˢ

& ;8 ˢ?!ˢ(C#B ;8 = ˢ

& ;8 ˢ?!ˢ ?;#?=ˢ

& ;8 ˢ?!ˢ)8 =@ ;= ˢ

& ;8 ˢ?!ˢ&AB=A#?=ˢ

& ;8 ˢ?!ˢ ! ' ˢ

& ;8 ˢ?!ˢ0 =8 #BA?Eˢ

& ;8 ˢ?!ˢ(#; #B<?; ˢ

& ;8 ˢ?!ˢ0?#B =ˢ

& ;8 ˢ?!ˢ(?C#B 8"ˢ

& ;8 ˢ?!ˢ ;=E #Bˢ

& ;8 ˢ?!ˢ 88 = ;ˢ

& ;8 ˢ?!ˢ0 =ˢ

& ;8 ˢ?!ˢ == = 8 ˢ

4& ;8 ?! 8@ ;;
& ;8 ?!/?;! ;
& ;8 ?!% ;;
& ;8 ?!&?=#? ;
& ;8 ?! ; 8D =

*(' %(
1 =<C ;
;DC#B= #
% ;D #
(# ;

0 + (
0? #
?!
%?;KB @B =
8 =#>;
; ;?!
C;AB8
!?;; # ;
;A =>
8B =
;< @B 8
+C!!C
? ' ?
C#B =
C#B ;!?;
E ;"
;=
1 == ;

$$* & ($ (% %&
0?; #B %B C; ; KC#
%B # ; ?! C;AB8
8 ;" ?! A # ;
%B 0?; ?@ #
%B 0?; JC # @ 8 ;"

((& ($ (&(
& =DC;AB
J?B= #8 = ?! B A
=A#?=
%B 0 ; ?! (# =!#?=
%B 0 ; ?! ;< !8F`=
;E @"
%B 0 ; ?! 0 =A#?C= &8 ;
%B 0 ; ?! /?8E ;#
?FDC;AB
(/ #; @" (@?## ?! =@;C<
(8" ;"
(2 88 < (@?# ?! ; =
/ D8
%B 0 ; ?! 8 @"D ;;?=>
0 = ;"
%B 0 ; ?! 0 < =A#?=
+C<!;
(J < J?B= #?= ?! 2 !# ;; E
J < J?B= #?C= ?! ?;B
2 A#?C=
(= ; E A= E ?! 0?@B= E
2 88 < ‖ ? 88 ?!) ;# 2 =

;
*!; =@ ?=#AC<; ?!) !! =
%B 0 ; ?! (" 8<?;8
+C<D ;#?C=9
8 C < 8#?= ?! ;=
2 88 < C8NCB?C= ?! ; A#?C=
C#
+ ?>8 ?! 1 8D < Y
=!; E
(J?B= FE 88 ?! /?88?@"
2 88 < C= =AB < ?! ; A =
(# ;8 =A
J?B= ?C #?= >?C=A ; ?! #B # *8"
8 F ?=;? ?! ;@;?!#
0 =8 #BA?E
%B?< + ;C<<?= ?! @" ;#?=
/ #; @" C;; > ?! 0 =A!#?C=
/ ;#B
J?B= = ?!) 8 = A
J < < > ?! <!
1 =@ ; =
(%B?< C;= # ?! 0 >A
8 F = ; ;DC#B= # ?! 1=?F
D ; = 0
(; J?B= !8!?;D ?! ; A E ;
J < ? ; ?! (# = E??
*= ;= 8
0 ; ?!) ; =#
+C=@ = !!?;D ?! ? ' ? =
<
%B 0 ; ?! 0?@B8?>
;A>8
(; +C=@ = <KD 88 ?! C@B =D; @"
J?B= <KD 88 K# = ?! ;; @"
$!!
2 88 < = #;C#B ; >?C=A ; ?! #B # *8"
J?B= + <K # ; ?! / #8 ;
$?;! ;
%B 0 ; ?! +C=
<!!
(/ #; @" A 8 ?! ?>=
8 F = ; +C!!?! ; @?
(# E ;#; ?! 1 ;"@C D; AB#
CAB AC!!?@" ?! C @?
(C#B ;8 =
J?B=) ?; ?= >?C=A ; ?! &<D?
<) ?; ?= ?! + 8!?88>
#B=

&8A =
%B 0 ; ?! ;?
%B?< + C<D ; ?! M $/
;"= >
2 88 < ; A> ?!) ; >
8 @"< == =
%B 0 ; ?! 8 @"< == =
?!
(; J?B= ?=;? ?! !!?
(;) ?;A ?=;? ?! C8; ##
1 =;?!
(; + ;=?# ?! #B # *8"

'B(

((& (' $ ') && ('

& =DC;AB

/ ;#B'

+C= ' 9'

D ; ='

(# ;B=A' 7

0 =8 #BA?E'

(7 = ; E '

)8 A?E' '

; '

=A#@<'

+> ;#'

1 ;" >'

?=#;?8 '

?CK ;'

= #;C#B ;' ;'

+C<! ; '

*= ;= '

= =# 8 = ' 4

*=C ;" #B =' 4

1 =AB?;= '

; @B =' / '

*; = '

J DC;AB'

1 ;"@C D; AB#'

2 A#?C='

+C<! ;<8 ='

/ ## =E <'

(8" ;"'

+C<D ;#?C='

=!; E'

+C<D ;'

0 = ;"'

D ;D;?#B?@"'

&8A = ' 0

/ D8 ' 0

; ''

% >= '

CB? ' 4

<!$ '

2 B #B?< '

$?;! ;'

?#B >'

< '

$?;; ! '

C#B ;A8 ='

?;#BD ;E @"'

= #;C#B ;' E # ;'

C88 =4

0 C ;' 4

1 =#? ;' '

== ='

0?@B< D ='

(=NCB ;'

E' A 88?E >'

1 ; =>'

$?;# ;? '

+ =AE 88

X' (J?B=' '

X') ?;A ' (# ;8 =A'

?D ;# (< #B

J < '!!8 #@B ;'

8 F) ?; ?=

CAB' 1 == >

2 88 <' A =

J < ' (<>#B9

' J?B=' = ; ?=9

J?B=' C ;

J < '0 C ;

+ ' B;> #

J?B=' 2 88

J < ' C

?D ;# 8 88

+ ' (K =@ ' /

J < '1 == =

J?B=' C#BD ;#

8 FJ)

8 FI (K ##8

/ #; @"' 2 88 @

=;>' C8

I 8 F) C= =AB < 9

<' = B

J?B=' &E ;#

2 < (<' ?8#; =

(B ;8 ' 8" #

) ?;A ' (< #B

J?B=' C;; >

J < '(<>#B9

=;>' C8

%B?< ' < 8#?=

/ #; @"' (# =

J < '(# E ;#

J?B=' C ;9

) ?;A ' ?= ; !!

2 8B <' ?!

7 2 ' <' &;8" =

2 # ;' (# E ;#

/ #; @"' C; ?@B

J?B=' < A

?D ;' (# E ;# /

J?B=' ?!

%B?< '% 88?@B' /

J?B=' (@?#

(' %B?< '(# E ;#

?7 8 B = '

J < 9 A 8

+ ' #8 =

CAB' 2 88 @

;>@ ' 8 ;

%B?< '1 == >

J?B=' ?!E '

J < ') ?; ?=

) ?;A ' #?=' /

?D ;# *== ' /

1 == #B' " =W ' /

((' +?< =' 8 =' K;?' / ;8F 9'

< =#?# = = ?

' 0*&0 ' (' Q' * ' + 'A; # ' A= '

; ## == <' !!; =@ ' # D ;= ' F' # A = '

4! N>' ! = ?; ' <= DC ' K;?D ' B?< = DC ' '

NC? ' K; =# ' B# ; ' =? #; ' K ; = ; =# (8C# <4

3C = NC <' ? ' < A= ' <?< =# ' ; # ?= D '

! ; # ?' =? #;?' # !CD #?;C<' =?!#;?;C; ' @?<<? ?'

< F < ' @?=#; DC =# DC ' <?# 4 #; C<' BC C ' =# NC '

A= ' =? #; ' ?; =C<' ?< # ' ' 'NC ;=' =? !9'

< ' ; =# K;?;?A # 4 = < ;C<' @ <?' ?@# ?' '

< =! ' ;# ' K;?F < ' 8 D =# ' @?= =#C; ' (# 9'

#C <C 5 @' NC ' =? ' ; DC ' D C ' F AC ' <?< =# '

=' A=?' =? #;?' =AB ' ?@ =# DC ' ! <' *=9'

; ! ' = NC <C 4 * ?N ' < = =# ! <?' @C <' #'

' 8C!#; ! < ' ?; = ' K;?D # ' ! 4 < ; # ' K; @8 ; '

@' K ;KC8@B; ' = < ' ?# DC ' *; DC#?4 (@; '=? #; 9'

K ; ?= ' # C#B?; # # <' *=' NC =#6' ! @C= ' @9'

#?;C<' @?< # ?;C<' (! ?= ' ; K; =# = ' JC ' #'

K?# # # <' @?< < ## ; ' @; <C 4 C<N ' ! K '

! K C ' @?<K ;#C<' B D <C ' ! B# # <' ! << <'

K; @8 ; ' = =B' ?# 4 #' ! <' A; A <' ! 8 ! < '

8 @# ! < ' =?!#; ' ?= B ; ') ?;A ' +?< = '

8 ' !?8 C ' =?!#; ' !8 #C ' (@; # ; ' K;?' @# '

=?!#;?' A=?5' ? N ' ?' ' K ;KC8@B; ' = < '

?# DC ' C! <') ?;A ' +?< = ' 8 88' NC DC '

' # =# ' ! C@ ' <C=C ' ?D C= C<4 @' K ' #; L

A ' =?!#; ' K;?K?! # ' K;?K A = ' =' K;?<? = ?'

;=' @?<<? ?' #' *=# ; ! ' =# NC ?; ' BC C ' =? #; '

A= ' # =' &@@8 ! ' # =' # #C' KCDB@?' NC <' ! ;L

?' # JC; ' =? #;?' K;?K; ?' C NC NC N ' # <DC9'

#C ' DC= ' K ; F ' # ! # ! @# 4 ? ; # ' *A #C;'

? 7 ! ' # @?=@ ! ! ' #' # =?; ' K; ! =# C<'

+ ; ' # @?=@ ; ' K; =?< = #?' ! 8 ! <?' # 9'

8 @# ! <?' =?!#;?'4 ?= ' ; ?) ?;A ?' +?< =?' 8L

88' K ; ?= <' # (@; <' =? #; <' # # <' F;'

!CD! NC =#' B @' ! ! ?= ' ! @C= ' ?< # ?;C<' / 7'

8 < =#' =# @#' =?!#; ' A= ' ; K; ! =# = ' #'

A 8' =? #; ' C#B?; # # ' =' <' CD @C=N ' '

&@@8 ! ' ! ;< = ' K @ ' # K?B# ' BC C ' ; A= ' @?=9'

! ; = ' # F@?8 = ' # ; ' =?!#; ' K;?K A = ' C#'

K;?<? = ' #; @# = C<'!C ; # C# = ' #' ='! =AC9'

8 ' #' C= ;! ' @#?;C<' ?< # ?;C<' < = !#; 9'

?= DC ' # =NH!CK; <?' =?!#;?' ?<F= ! ?= ; ?' 9'

C @ = ' K8 = ! < <' F=K8 ! < F=' # CD ;; < <'

K?# # # <' # @?< ! ?= <' / ?;;?' # =?; ' K; ! =L

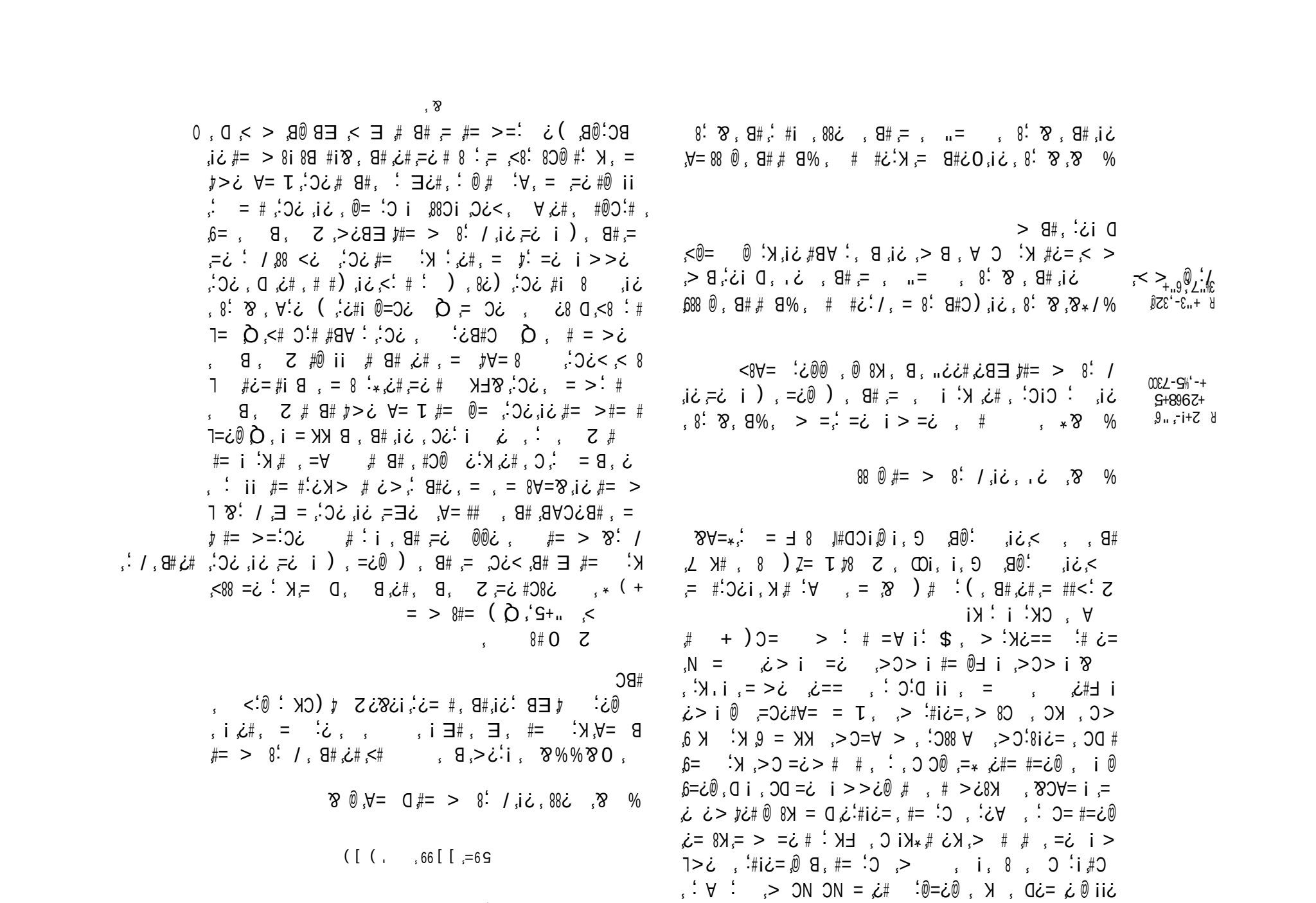
C<' C= <') ?;A C<' +?< =C<' 8 B' @C<'

?<< ! ?= ; ' =?!#; ' # #C8?' ; A '' =?!#;?' @B T @# ; '

*= A= <C ' K8 = <N ' K ' # DC <C ' ! @C8# # <' #'

K?# # # <' ?<= ' # =AC8 ' ' <K ; C<' # <CY

)+% 6 * + L'
+' 3 +*0 '
1 * ' +,'
7 ',+*'
&+ . 0' & '
-+ .'
, + ',
* 6



<? #q?= C@ 8 8 '#?'#B 'A8? >'?!')? 4 = ' A; 9' D! '#?'#B ' *=@8 = # ?= ' ?!' ?C;' K ?K8 4 #B # #B ' @C; #>' ?!' #B ' K @ ' ?!' #B ' ?C=#; >4 = ' K >L < =# ?!' ?C;' !?;@ ' < >' D 'K;? > ' !?;4 = '!C@B' ?#B ;' 0 E ' %' D ' = @# ' ' < >'; = ;' >?C' B KK>' = '@?=# =#

' ?C;' *= #;C@# ?= ' [KEB @B' 2 ' ?; ; '#?' D ' KCD8 B '!?;' >?C;' =!?;< # ?=~' ?C' E 88' K ;@ ' #B ' ; = ! ' ?=' ?C;' K ;# #?' B ' =!E ; '#B ' 9' >; ' ?!' ?C;' / ?K8 '#B '8 # (! ?=' ?!' / ;8 < =#4 = ' 2 ' ; ' @?=! =# >?C;' p 8 '#?' 8 A ?=4 >?C;' ?> 8#>' Q' ! @# ?=' #?' *% 4 = ' >?C;' C#>' #?' >?C;' ?C=#; >' E 88' < " ' >?C' 8?! '=? ' <?; '# < 4 DC#' A?;?C!8>' ! 88' D?C# #B ' (#8 =A' ?!' #B ' A; #' @? @ ;= ' ?!' #B ' # ?=4 CK?=' C #' = ' ; !?= D8 ' !?C= # ?= ' *=' EB @B' >?C' B 88' 8E > ' B ' C;' ?> '' ! ! =@ ' Q' /;?# @# ?=' 2 ' B ' < ' @B? ! ' ?!' #B ' & ;8 ' ?!' 8 88' CK?=' CJ!! @ =# &FL K ; =@ ' ?!' B ' ! #B!C8= ! ' #?' -' = ' B ' ! @# ?=' #?' B ' ?C=#; >4 = ' 2 ' ? ' ; NC>; ' >?C' #?' A ' B <' #B # ; # ' Q' ; A ; ' EB @B' ' C ' #?' ?C;' ?< < ! ?= ;4 = ' #?' ? ' 88' ?@@ ?= ' #B # < >' @; # ' ?;' !?< =# !! ; =@ ' Q' = <?! # ' #?' ; # ; ' ?;' ?D #;C@# #B ' C= #>' ' C@@ ! ' ?!' C;' <C#C 86' = ?C; ' !?;' #B ' KCD8 @"' A?? ' = ' ?' 2 'D '>?C' B ;# 8>' ! ; E 884) =' #?C;' ?C;#' 9 # 1 = =A#?C=' #B ' 7' >' ?!' K; 88' G ' = ' ?!' ?C;' A= ' #B ' (@?= '> ;' 4

d%?' #B ' ?D8 < =' = ' ?< < ! ?= ; ' !?;' (B ; ' = '7 8 + 2.' ! <D8 ' =' ?C;' / ;8 < =# ?!' (@?#8 = -

M%& '=+*.' * . 0

% &' 0?; ' /; ! =# < ' ' K @B' #?' #B ' / ;L 8 < =#

M ' +' =+*.' I * 0

&' / # =# K;? C@ ' *=' ! ?C; ' ?!' #B ' 0?; ' ;= ' = ' ' = ' !# ;' !?< ' D # ' &CK?=' 0?; 2 88 <' C;; >' ' B =A' < ;;> ' #B ' 0 >' ;= ' #??"' #B ' ? #B' ?!' 88 A =@ ' = ' / ;8 < =# = 'E ' < ## ' ' 0?; ' ;=

M%& ' *' +;'> *0& ') *(' +,' 5 0 *' Q' & '=+*.' 5 &'%* H * *' ' H < 0

% &' 1 =A ' #E?' 8 ## ; ' K;? C@ ' = ' '?= ' !?;' =?< = # =A' #B ' !# ;' ?!' C;AB8 '#?' ?!! @ # ' ' 8 ;" ' A !# ;' #B ' ! ! ?=' ?!' / ;8 < =# D =A' = ' ?!' #B ' ?< < ! ?= ; ' !?;' F ;@ =A' #B ' ' [?!! @ ' = ' #B ' ?#B ;' =?< = # =A' #B ' 0?; ' F#B' #?' ?!! @ # ' ' %; !C; ;' KC# ' B ' D =A' ?= ' ?!' #B ' ?< < ! ?= ; ' ?!' %; ! C; ;>' @?=!?;< ' #?' #B ' 1 =A 'K; 8 A ' ! ;# ' =' #B ' / ;8 < =# V

M *' 3 + 0 ' =?@" ' =+*.' - ') *(0'

&' / # =# K;? C@ ' =?< = # =A' (;') ?;A ' <KD 88' ?!' ! ?K"' #?' D ' 0?; ' JC!# @ ' 8 ;" 4 EB @B' E ' ; ' = ' B ' #B ; CK?=' < ## ' #?' ? #B' ?!' ' A =@ ' = ' / ;8 < =#

% &' ; CAB#' ?!' #B ' @#' ?# ' =' #B ' 8 # (! ?= ' ?!' / ;8 < =# @ = =A' #B ' @#' ?!' (CK; < @>4 D =A' #E ! ' ; 4 = ' #B ' ?#B ;' ; CAB#' ?!' = ' @#' 8!?' ?# ' #B ' 0 # (! ?=' ?!' / ;8 < =# !?;' #? =A' #B ' /; B># ; <' J = # ; ' EB?' E ; ' #B;C #!;?<' #B ;' BC;@B ' =@ ' #B '! ; #?!' J =C ;>

% &' & ;8 ' ?!' ;=E #B' 1 =@ ; = ' = ' 89' @ ;; '%B ' 0?; ' 1 == ; 4 #B ' 0 ; '?!') 8 = A ' = ' ?!' #B ' ?< < ! ?= ; ' !?;' / ;#B!B>; 4 CAB' ! 8 @ ' @?< < ! ?= ;' !?;' #B ' C;AB' ?!' 1 =#? ;' = ' 1 ;@BD 8 ' (=@8 ;' ?< < ! ?= ;' !?;' #B ' DC;AB'?!' 2 " '#??" '#B ' ? #B '?!' ' A =@ ' = ' / ;8 < =#

M2 &'+, .0 - (0

% &* ' !# ' ?< < ! ?= ;' ?C;= ' #B ' / ;8 < =# # 88' !;> >' = F#. ' S 7' K; 8' *=!# =# # # =' '@8?@"' =' #B ' !?; =??=' = ' 88' K;?@ ! ' = ' < ## ; '@?=# =C

%' &+* ') 4

/ *0' , , 4 4+ 4,

% &' ?88 '?!' / ;8 < =# D =A' @ 88

' *((8 &' /;? C@ ' =' ! ?C; '?!' J < ' d ?< < #'); B ; '?!' C@"8>' ' ' = '?!' #B ' ?< < ! ?= ; ' !?;' #B ' !8 >; ' ?!' (# ;8 =A' =' K8 @ ' ?!' #B ' 8 ; '?!' 8 ' @ !#' = ' #B ; ' D =A' ' K;?# !# # ?= ' A =!# #B ' ' &8 @# ?= ' # " =' D>' #B ' 0 ; '?!' 4 /?8< ' = '?#B ;' D ;;?= ' D?#B' #B ' ?< < ! ?=' = ' K;?# !# # ?= ' E ; ' ; ' = ' ; < ## ' #?' D ' @?=! ; 'D ' ' ?< < ##

% & &' D =A' ?=#; ;# '&8 @# ?= '!?;' = '?!' #B ' ?< < ! ?= ; ' ?!' #B ' (B>; ' ?!' (8" ;'" = ' !?;' = '?!'#B ' ?< < ! ?= ; ' ?!' #B ' (B>; ' ?!' ; ' = '#B '!?;! ' ?< < ! ?= ;' !?;' #B ' (B>; ' ?!' (# ;9' 8 =A' *#' E ' <? ' #B ; ' < AB#' D ' ' ?< < ## ' KK? =# ' !?;' @?= ; =A' ?=#; ;# ' &8 @# ?= 4 = E ; '%B #'#B ' ?< < ## '!?;'&8 @# ?= '@B? =' D '#B ' < # =A' ?!' #B ' (# # ' ?#B' # '' CD #' = ' ' D # ' ; ! =A'#B ; CK?=' #B ' < ## ;' E ' 8 >

M ' &' &8 @# ?=' !E' (*(' * ' ' (# 98<A'

% & &' D =A' 'K # # ?= 'K; =# T!?;' #B ' /; 9' D # ; =' -b* = # ; 4 = '#B ' < ' #E ! ' ; ' *#' E ' <? '#B #' ' ?< < ## ' < AB#' D ' KK? =# ' !?;' @?= ; =A'#B ' <

M * / ' = # ; -7

*%' E ' = E ; ' #B ; ' @?C8 ' D ' =? ' ?< < ## ' KK? =# '# 88' #B ' @#' = =#' #B ' ;# @8 ' E ; ' 9' ! = ' = =#' EB @B' #B ; ' E ' ' ?# ' K #'#B '8 #' (! ?=' ?!' / ;8 < =#' EB @B' #' E ' @; ' < AB#' D '#?C@B 5 ' 8 ? ' = ' @#' !?;' !@ = =A' #B ' @#' ! ;# =A' B ' # ' (CK; < @>' *=' < ## ; ' &@@8 # @"4 = '#B #' D =A' ?= '#B >' E ; '@?=L # =#' #?' K;?@ '#?' = < ' ' ?< < ##

% &' ; CAB#' ?!' #B ' @#' ?# ' =' #B '8 #' (! ?= ' ?!' / ;8 < =# @ = =A' #B ' @#' ?!' (CK; < @>4 D =A' #E ! ' ; 4 = ' #B ' ?#B ;' ; CAB#' ?!' = ' @#' 8!?' ?# '#B ' 0 #' (! ?=' ?!' / ;8 < =#' !?;' #? =A' #B ' /; B># ; <' J = # ; ' EB?' E ; ' #B;C #!;?<' #B ;' BC;@B ' =@ '#B '! ; #?!' J =C ;>

M - '* ' - . 0' & ' -' +,' <* 6 - ' Q' * +* 0' * / * ' * ' < 0

K; ;; #B @?=! ; # ?= ?! #B ! ?<< ## B?C8 K; = # D =A <? #B =A #B < <D ;?! ?CD8 8 @# ?= E ; =?# A; * E KC# #? #B NC # ?= EB #B ;# #? @?= ;#B ! < = K8 = / ;8 < =# ?;D> ?<< ## ;; #? @?=8 ;#B < D> ?<L < ## 5 = #B ; D =A =?#B ;NC # ?= # # EB #B ;#B ?<< ## @B? =! ?;?=#; ;# &8 @# ?= D>#B < # =A ?! &!# # #B?C8 ID @?=L # =C ?; = E ?= @B?! = ;;> = E ?= #? D B?! =

% &* # ?<< 8 ?= ; ?C;= #B / ;8 < =# # #BC; >= F#4 = 88 K;?9 @ ! = < ## ; @?=# =C # 88 #B # #><

%& +* ') 4

*4 4+ 4, 9

% &;?' ?! / ;8 < =# @ 88

K/ # =##? / %& %K;? C@ = ; = ! ?; ?! (; U J < + 8; <K8 ?! (# ;#? D ! ?C=# ?! (# ;4 0?;)8 =8C@ = (#; =; E ; = B #B ; CK?= < ## = #??B #B ? #B ?! ' A =@ Q / ;L 8 < =#4

% &;?@ ! ?! %; ?= KC; C # #B *= # =@ ?! B # ?@ # A = # #B ; ?! #B ! ?C=# ?! + C= Q ?#B ; = #B K; =# D 89 8 ?= @ 88 4 Q #B 0>D 88 = &F @C# ?= = ; !

(&?! #B ?D 8 #> B =A ; <? #? < " #B &8 @# ?= ?! #B ;=C<D ;!?;#B ?<< ## ?! &8 @# ?= 4 = # D =A NC ;; 88 #B # #B > ; L <? @?=#; ; #? #B K; @# ! ?! #B < # =A ?! &!# # = E #B?C# = ?; ;?! #B B?C! *# E =!E ; #B # = !?;< ;# < #B ;# @8 E ; @B?! = D> #B ?D 8 # !# ;; <? =A #? #B *== ;B?C! = A; # K ;# ?! #B ?D 8 #> B L =A @?=# =C = #B ;K8 @ *# E KC# #? #B NC # ?= EB #B ;#B #>< ?! #B &8 @# ?= #B / ; ?; ?D 8 # B?C8 !# > = #B B?C! ?; ; <? #? #B *== ;B?C! 4 ;;> #B # #B ?D 8 #> 8 ?C8 !# > = #B B?C! 4

% &* # ?<< ! ?= ; ?C;= #B / ;8 < =# # 88 #? <?;;?E # # = @8?@"4 Q 88 K;?@ ! = < ## ; @?=# =C # ' #B # #><

%& +* ')

**4 4+ 4,

% &?88 ?! / ;8 < =# @ 88

% &?88 ?! / ;8 < =# @ 88

% *(> ; 88 ?! #B ?D 8 #> B =A ; K; ! =# = / ; < =#4 %B # # E 88 KK ; D> #B @?; = 4K;?@ =A ?! !?;< ;? / ;8 < =# #B # #B & # # ?! #B ?D 8 #> # #B @B? ! =A ?! ?<< ## # ; #? #B *== ;(! ?= B?C! %B 0?; ?<< ! ?= ;) ; @ = #B &!# # ?! / ;8 < =# ? ?8 #B # #B @?; B 88 D @?=! ; Q #B # C8 B 88 D < ?; ; =A #B < #B? ?! @B??! =A ?<< ## !?;#B !C#C; =?#E #B # = =A ?! #B ?# ?! #B ! ; # ?! > *= # =#

5 +7 +, * 6 & 6 &+. ;, -&++, 0 +,)+6 6

* A ; #B # (;J < + 8; <K8 ?! (# ;EB? ?= ?! #B ?<< ! ?= ; @B?! = !?;#B B>; ?! ; =K8 @ ?! #B @ !# 0 ; ?! 8 ;E K;?<?# #? D = ! ?C=# = #B # #B ?<9 < ! ?= A; =# #?D #B ;; 88 #B # #B > ; L ! B>; E =?# A= D #B 8 ;" = B #B ; = ?#B ;=!?;< 8 # %B ; # ?<L < ! ?= ; = &!# # ?! / ;8 < =# A; =# = ?; ;?!;= E &8 @# ?= ?! ?<< ! ?= ; !?;#B B?C! #B B>; ?! ;

: ** ,+ ? 1 - + ,+ & & * +,

$ (' CK?= #B #B ?! 2 88 < 8 ;?!#B # 8 " ?= ?! #B @?<< ! ?= ; !?;#B B>; ?! ; #B ; E ?<< ! ?= A; =# D> #B ;;?= = ! ; B?8 ; ?! #B # B>; #? #B ! ?C=# ?! (# ;#B = A= (;J < + 8;><K8 ?! (# ; #? ; K; =# #B <= K8 @ ?! #B ! 0 ; ?! 8 ;4 = #B ; D =A =?#B ;?<< ! ?= A; =# D> ! < 88 ;=C<D ;?! #B !; B?8 ; ?! #B B>; #? #B 0 ; ?! ?E 88 = EB @B E =?# CD @;> D> #B 8 ;" ?! #B # =A4 %B 0?; ?<< ! ?= ;) ; @ = #B &!# # ?! / ;8 < =#4 *= ; A ; ?! #B K;?<?# ?= ?! #B 0?; (# ; 4 = #B *= 8 # ?! #B &8 @# ?= ?! #B 0 ; ?! ?E 88 =4 +? ; = = E &8 @# ?= #? D < ?! ! ## K ; ?= #? D ?<< ! ?= ;!?;#B (B>; *= K8 @ ?! #B @ !# 0 = ?! 8 ;5 = ?) ; =# E ; = = ?; ;#? #B B ; !$ K; =@ K 86 ?! #B B>; ?! ; ?;#B KC# #? ?= = #B ;?= = !; B?8 ; ?! #B ! B>; = #B C!C 88 !?;< #? #B !! @# !?;

M & 1 - + +, I+/ ,+ &)+6 6 H +, 1 -H + 0

8%*+- +, %* + 0 & * +, & R -+76 +, ' Q + & * 0

%&' ()' ,+*' ' ?' 0> - +>',+*' ' *4+,' * 00

+ & &+' #B #' 'E ;; = ' D ' A; =# ' !?;' #B ' = E' &8 @# ?= ' I!' ' ?<< ! ?= ;' !?;' #B ' B>; ' ?!' (# ;8 =A' *=' K8 @ ' ?!' #B ' @ !#' * ; ' ?!' 8 ' J < '); B < ' ?!' C@8 > ' EB?' E ' !?;< ;8>' @B? ='B =A'K #!;?<'B ' ?<< ! ?=

= E ;'#?' 0## j#?7D' K; K ; -'

% & ' ; ' ?<< !; ?= ;'?; ; 4'#B #'#B ' q?<< 8 ?= ; '!?;'#B ' A !# ; '?!! @ 'K; ; ; ' = ' D; =A' =' Y ' ; CAB#?!' = ' =!E ; '#?'#B ' 1 =A ' , ## ;'E; ## ='#?'#B ' / ;8 < =#

% &* ' # ' ?<< ! ?= ;' ?C< ' #B ' / < =#' # 88' # C; >' = F#' #' # \' ' @8?@"' ;'@?=# =C ' &'\Y?@ ! ' = '< ## ; '# ' #B ##><

'

'Q . '

% &' ?' '?!' / ;8 < =#'@ 88

J ' & ' * - ' < ' 9& ' ' , + '+,' * 6 0

% &* ' A # ' ?<= !; ?= ' @8 ; '# ; #'B ' E ' =?#' *= #;C@# ' #?' #?C ' #B ' ?# ' = =#' 7' !@ = =A'#B ' ;# @8 ' K #'#B '8 #' (! ?='?!' / ;97' 8 < =#' = ' #B ; ' D =A' ' = E' ; EAB#?!' = ' @#'#B ; = =#'K;? C@ '#B ; 'E ' = ' ?# '!; # ' EB #B ;'#?' K;?@ '#?'#B ' @?= ; # ?= ' #B ' @#' = =#' ; !@ = =A' #B ' ;# @8 ' ?;' = =#' !; L ?<' ?!' K @B4' ;;> ' #?' K;?@ '#?'#D ' @#' = =#'#B ' ;# @8 ' = ' #' D =A' #B ; # ;' KC#'#?' #B ' ?# 'EB #B ;'#?'K;?@ '#?'#B ' ; CAB#'?!'#B ' @#' = =#' !@ = =A' #B ' ;# @8 4' K;;! =# ' #B ' 8 #' ! ! ?='?!' / ;8 < =#' ?;'#?'#B ' = E' ; CAB#' K; ! ='# '#B ' >'D '#B '& ;8 '?!' #A>8 4' ;;> ' #?'K;?@ '#?'#B '= E' ; CAB#

%' @?=@ ;= =A' #B ' &8 @# ?=' ?!' ".@& < ## ' ?!' / ;8 < #

.' $ (' ' '#B ' < # =A' ?!'#B '& # # '?!' #B '1 =A ?< ' 'D>'#B ;' ?# '?!'#B #B ;# =#B?!' K; 8' *7W' @7' = ' AB#>' =>= ' K; ! =#' <?=A!#' ?#B ;' A; =@ ' %B #'#B ' ?<< ## ' ?!' K 8 9' < =#'@ 88 '#B ' ;# @8 ' ' 'A; #'A; = '#?'#B ' # ?= 4' = ' #B #'#B ; ' ?CAB#'#?' D ' =?' XE 9' < ## ' ?!' / ;8 < =#'DC#'!C@B' ' ; '!; 8>' ?!?' D>'#B ' &!# # ' #?' K; K ; ' <?# ?= ' = ' ? ;#C; ' #B #' ; ' ! ; #' < ' =' #B ' B?C! 4' %B ;!?; ' ?C;' (? ; A= ' 0?; ' Q' 0 >' #B ' 1 =A' = ' 3C = ' !# 'E #B' >@ ' = ' ?=! =#'?!'#B '&!# # '?!' / ;8 < =#' +? ' B D>' ! B ;A ' = ' D;?A # ' =' 88'#>< '@?< =A'#D '!?; ' ?<< ## ' ?!' / ;8 L < =#' @ 88 ' #B ' ;# @8 4' = ' !C;#B ;' ! ' = ' ==C8 ' = ' !@ = ' #B ' 7' @#' . ' (! ?=4' / ;8 L < =#' ! ; #4' B ;8 ' #D ')' = =#' #B 'E >' = '< =L = ;' ?!' &8 @# ?=' ?!' J ' 0?; ' ?!' #B ' ;# @8 'E #B

8' ?#B ;' @#' 'O E ' = '??=!# #C# ?= ' !# B8 !8 =A' #B ' ' ?<< ## ' ?;' 0?; ' ?!' ;# @8 ' 0>" ' %B ;' !# ' E #B' >@ ' = ' ?=! =#' !?;! ' +? 'B ;B>' = @#' = ' @8 ; ' #B #'#B 'K; ! =#' = ' '!C@@ =A' / ;8 < =#' = ' #B; ' !# # '#B ; L ?!' < >' @B? ! ' = ' KK? =#' ?<< ## ' ?!' EB #' =C<D ; ' #B >' K8 ! ' %B ; ' D =A' 8E > ' = ' NC 8' =C<D ;' ?!' ' # # '#?' D '@B?! =' W #B ' =?D8 < ='D>'#B ' !# # ' ?!' =?D8 < =' %B ' D ;; = ' D>'#B '&!# # ' ?!' ;; = ' = '#B 'DC;;?E 'D>'#B ' &!# # ' ?!'DC=;?E '!?;'K; K ; =A' 8' <?# ?= ' = ' ? ;#C; ' ! ; #' < ' =' #B ' B?C! 4' = ' #B >'< >' 8# ;' = ' @B =A ' #B ' ' ?<< ## ' #' #B ;' K8 ! ; ' E #B?C#' K; C @ ' 8E > ' #?' #B ' # # ' ?!' / ;8 < =#' #?' #; # ' ?# ' = ' ?=@8C ' K?=' < ## ; 'K;?K?= ' ?;' D;?CAB#' D ! = '#B =' ='K8 = ' / ;8 < =#'E #B?C#' ?<< ## ' '#B >' B 8' #B ="' !! #' = ' D ' K;? > =A' #B #' =' 8' ?<< ## ' #?' D ' B !# ;' KK? =# ' ?< ' ?!' #B ' ?!! @ ; ' ?!' (# # '< >' D ' K; 8 #' D>' #B ;' # ' ?;' #B ;' ?<< ! ?=<' KK?#=# = <4' '#?'#B <' B !#' < = ;! ;>4' = '#B #'#?'#B ' !! @#' = ' 2 #B'K?E ;'#?' # ; ' '?!! @ ; ' 0' # # 'K; ! =#' ='#B ' ! ' ?<L < ## ' !; 8>'#?'K;?K? ' %5' D # ' 8 == ; >'DC#' =?#' #?' ?# 4' + "C =A' 0>" ' *#' ' B ; D>' L @8 ; '#B #'=?'?!! @ ; ' ?!' # # '8B 8' D '?#B ;E > ' < ## ' ='=>' ?<< ## ' ?!' / ;8 < =#' DC#' #' 'B ; ' 8?E ' C#' K; C @ ' 8E > ' #?' #B ' !# # ' ?!' #B ' ?D8 < =4' #?' @B? ! ' !C@B' ?!' #B ;' ?E= 'D =@B' ' ; '#!! ; ' ?!' (# # '#?'B ' < <D ; ' ,'#B ' ?<< ## ' !'#B >'#D =" ' ! ##

*%' ' A; '#?' D '#B ' B?C! '#B #'#B ' ?<< ## ' M '&' !?;' ?=#; ;# '&8 @# ?= '@?= #'?!'!> '?!'& @B' # # ' = '#B #'#B ' ?<< ## ' !?;' ! ##8 =A' #B ' DC= ')? ;=< =#'@?=! !#?!' F'?!' @B' !# #

% & &' D =A' ' ?# ' # # 'EB #B ;' #B ' @#'!?;' d = =#'#8 @ !; ?< ' !' K @B' B?C8 'D '@?=# ; ' ='K8 = ' # / ;8 < =#' ?;' ; < ## '#?' ' ?<< ## 4' ;;> ' < -&0' #?'B '; < ## '#?' ' ?<< ##

% & &' D =A' =?#B ;' ?# ' # # 'EB #B ;'#B ; ' B?C8 ' D ' ' ?<< ## 'K; ! =#8>'@B ;! =' %?' @?=L ;' ?!' ' (CKK8>'#?'B 'A; =# '#?'#B ;' !# ' ?;'#B #'#B ' < ' D ' 8 > 4' ;;> '#B #'#B ; ' B?C8 ' D ' ' ?<< ## '@B?! =' = ' F' ?!' @B' &!# # 'E?; ' KK? =# ' #?' D ' CK?='#B ' ' ?<L < ## 4' = '#B ' ?;'K ;'#?'D ' '3C?;C<

*%' 2 '<? '#B #' =' ; K @#' ?!'#B 'K; =#' F L A =@ ' ; NC>; =A' ' CKK8>'#?' D ' A; =# ' #?' B ' !# '!?;' CKK?;#?!'#B 'A? ;=< =#' = '< =L # = =@ ' ?!'#B ' ! @ 4'#B #'#B ' / ;8 < =#' E?C8 ' = < ' ' ?<< ## ' !?;'#B ' < ## ;' ?!'#B ' CKK8>'5 = ' #' D =A' !# A ' D>' ?< ' <D ; ' #B #' #B ; 'E ; ' ; 8'#B =A ' =' ; 8 # ?= '#?'#B ' CK9

5 '+,' * 6 ' +' &')+6H 6 ' - &_' <<

K8>ˢ EB @Bˢ E ; ˢ ! ##ˢ #?ˢ D ˢ @?= ; ˢ D>ˢ #B ˢ / ;9ˢ D !XE ˢ !8 ˢ < ## ;ˢ *B?C8 ˢ D ˢ ; < ## ˢ #?ˢ ˢ ?< < ## ˢ ˢ #B ˢ NC?# ˢ ?!ˢ #B ˢ CKK8>4ˢ #B ˢ !?= ˢ ?;ˢ CD @#ˢ !;?<ˢ EB @Bˢ #ˢ B?C8 ˢ D ˢ CK8 !# 4ˢ #B ˢ # ;< ˢ = ˢ < == ;ˢ ^;ˢ CK8 !# =Aˢ #B ; ?!ˢ *#ˢ E ˢ KC#ˢ ?ˢ #B ˢ ?# ˢ !ˢ #B ˢ < ## ;ˢ ?!ˢ #B ˢ CKK8>ˢ B?C8 ˢ D ˢ @?= ;L ˢ =ˢ K8 = ˢ / ;8"# =#ˢ ?;ˢ ; ! ;; ˢ #?ˢ ˢ < ## ˢ = ˢ #ˢ E ˢ ;;> ˢ #?ˢ ; ! ;; ˢ #ˢ #?ˢ ˢ @ =< ## 4ˢ = ˢ #ˢ E ˢ A; ˢ #?ˢ D>ˢ #B ˢ B?C! ˢ #B #ˢ Fˢ ?!ˢ @Bˢ &!# # ˢ B?C8 ˢ D ˢ= < ˢ #?ˢ D ˢ ?=ˢ #B ˢ ?<=8 ##

% &*&ˢ # ˢ ?< < ! ?= ;ˢ ?C< ˢ #B ˢ / ;B < =#ˢ # 8ˢ #?ˢ <?;;?Eˢ #ˢ =>= ˢ ˢ ?@"ˢ = ˢ @?=# =C ˢ 8ˢ K;?@ ! ˢ = ˢ < ## ; ˢ # 8ˢ #B #ˢ #><

%ˢ &+* ' 1) 4

ˢ * , 4ˢ 4=@4F@

) * ˢ ?8 ˢ Iˢ / ;8 < =#ˢ @ 8

)%& ˢ)+6H 6

% &ˢ B?C! ˢ B =Aˢ ; !?8 ˢ K; ! =#8>ˢ #?ˢ @B? 8 ˢ #B ;ˢ ! ; 8ˢ ?< < ## ˢ !?;ˢ #B ˢ !! ; ˢ C= ;ˢ E; ## =ˢ %B ˢ ?D 8 #>ˢ ; # ; ˢ #?ˢ #B ˢ *== ;ˢ B?C! ˢ %B ˢ D ;;?= ˢ > ˢ !# 8ˢ = ˢ #B ˢ C ;?E ˢ; # ; ˢ #?ˢ #B ˢ;?C< ˢ EB ; ˢ #B ˢ ?=C ! ;ˢ ! ## ˢ = ˢ B L =Aˢ < ˢ #B; ;ˢ 8 @# ?= ˢ #B >ˢ; #C;= ˢ = ˢ #B ˢ K ;L ?= ˢ !? ' ?E =Aˢ E ; ˢ !?C= ˢ @B?! =

% &ˢ < #; ˢ !?;ˢ @?=#; ;# ˢ &8 @# ?= 5ˢ = ˢ 9 +ˢ #B ˢ @#ˢ = =#ˢ !; ?< ˢ 0ˢ K @B

% &ˢ ;NC ˢ ?!ˢ +?CA8 ˢ %B ˢ & ;8 ˢ ?!ˢ &A =A9ˢ #?=ˢ 0?; ˢ !!D;; !# ;ˢ 8B =ˢ = ˢ ?8?4ˢ (;ˢ J?B=ˢ !!D;D ˢ ?!ˢ ; A ;ˢ (;ˢ ;@BD 8 ˢ C;; >ˢ ?!ˢ 8 @"9ˢ D ;;?=>ˢ (;ˢ) ?;A ˢ ?=;? ˢ ?!ˢ C8; =ˢ (;ˢ =L ; Eˢ A= Eˢ ?!ˢ 0?@B= Eˢ %B ˢ 0 ; ˢ ?!ˢ +C=ˢ (;ˢ J?B=ˢ 8ˢ ?!ˢ +C=A8 ! ˢ ?D ;#ˢ 8 88ˢ 7 2 8L < ˢ ; !8 =4ˢ J?B=ˢ ?! ˢ Q) ?;A ˢ) ?; ?=

$ ˢ #B ˢ ?< < ## ˢ = =#ˢ ! ##8 =Aˢ #B ˢ BC;@Bˢ) ? ;=< =#

% &ˢ & ;8 ˢ ?!ˢ ; C!C; 4ˢ & ;8 ˢ ?!ˢ (C#B ;8 = 4ˢ !9ˢ ?C=#ˢ ?!ˢ ;DC#8< #4ˢ !@?C=#ˢ + ˢ (# ;4ˢ 0?; ; 9ˢ ;?! ˢ 0?; ˢ ;< @B 8ˢ (;ˢ J?B=ˢ FE 8ˢ (ˢ / #L ; @"ˢ ??< ˢ (;ˢ J?B=ˢ ?=;? 4ˢ (ˢ ;@BD 8 ˢ ?@"9ˢ DC< ˢ %B ˢ 0 ; ˢ ?!ˢ ;? ˢ %B ˢ 0 ; ˢ ?!ˢ + 89ˢ !?8 4ˢ 2 ' 8 <ˢ AA = 4ˢ J < ˢ (< #Bˢ !?;ˢ ([=L ; E 4ˢ J?B=ˢ = ; ?= ˢ !?;ˢ) 8 A?Eˢ J < ˢ 1 =7ˢ = =ˢ / #; @"ˢ C; ?@B4ˢ (;ˢ %B?< ˢ (# E ;#

% &ˢ ?< < ## ˢ !?;ˢ A; =# =Aˢ (CKK8>ˢ #?ˢ #B ;ˢ !#

+ ' 1 &ˢ <8#?=4ˢ & ;8 ˢ ;A>8 4ˢ & ;8 ˢ ! 88 4ˢ & ;8 ˢ ?!ˢ !!?;! ;4ˢ & ;8 ˢ ?!ˢ 1 =#? ;4ˢ & ;8 ˢ ?!ˢ % ;; 4ˢ = #;C#B ;ˢ d?!ˢ K7*" -ˢ (;ˢ %B?< ˢ C;= #4ˢ 0 ; ˢ?!

; A = ˢ K# = ˢ?!ˢ) ;; @"4ˢ 0 ; ˢ?!ˢ 1=?F4ˢ (;ˢ J?B# ˢ #8 = 4ˢJ < ˢ ! 8 #@B ;4ˢ 8 Fˢ) ?; ?= ˢ ˢ J < ˢ 0 C ;4ˢ J < ˢ C ˢ J?B=ˢ C#BD ;#ˢ (;ˢ / #; @"ˢ C;; >

% &ˢ ?< < ## ˢ !?;ˢ ?= ; =Aˢ !>= ˢ = ˢ !?;! #C;

% &ˢ & ;8 ˢ?!ˢ ?;#?C= 4ˢ & ;8 ˢ?!ˢ 0?#B =ˢ & ;8 ˢ?!ˢ 0 = 4ˢ !@?C=#ˢ ?!ˢ 1 =<C ; 4ˢ 0?; ˢ %?;9ˢ KB @B =ˢ 0?; ˢ 8 =#>; 4ˢ 0 ; ˢ?!ˢ) ; =A 4ˢ 0 ; ˢ?!ˢ ?'? =4ˢ 0 ; ˢ?!ˢ/ #8 ;ˢ 0 ; ˢ?!ˢ C!@?ˢ 0 ; ˢ?!ˢ) ;#B8 = ˢ (;ˢ ?D ;#ˢ (=@8 ;4ˢ 8 Fˢ (K ##8 4ˢ ˢ J?B=ˢ C;; >ˢ ˢJ < ˢ (< 88 #ˢ ˢ ?D ;#ˢ 8 8 = ˢ ˢJ?B=ˢ ? !E 8ˢ (;ˢ 2 88 <ˢ < 8#?=

% ' * ˢ # ˢ ?< < !# X ;ˢ ?C;= ˢ #B ˢ / ;8 < =#ˢ # 8ˢ C= >ˢ = Fˢ = ˢ @?=L # =C ˢ 'ˢ K;?@ ! ˢ = ˢ < ## ; ˢ # 8ˢ #B #ˢ #><

%ˢ &+* ') 4

ˢ , **4ˢ 4+ 4 ,

% &ˢ ?8 ˢ?!ˢ/ ;8 < =#ˢ @ 8

%ˢ KK? =# =Aˢ #B ˢ? #Bˢ?!ˢ 8 A =@ ˢ#?ˢ D ˢ # " =ˢ D>ˢ &8 @#?; ˢ ?!ˢ ?< < ! ?= ; ˢ #?ˢ / ;8 < =# ˢ ?;ˢ ?= =# ?=

' ˢ (& *) &ˢ 0 +ˢ Q 0 + ˢ = ˢ #B ˢ & # # ˢ ?!ˢ / ;8 < =#4ˢ ?= ; =Aˢ #B #ˢ #ˢ ˢ #B ˢ C#>ˢ?!ˢ 8ˢ CD @# ˢ #?ˢ # " ˢ #B ˢ? #Bˢ?!ˢ 88 A 9ˢ =@ ˢ !ˢ; NC ; ˢ #B ;#?4ˢ +? ˢ %B ; !?; ˢ B ; D>ˢ ;9ˢ = 4ˢ (# #C# ˢ = ˢ &= @#ˢ %B #ˢ 8ˢ &8 @#?; ˢ #B ;ˢ =ˢ (B>; ˢ?;ˢ DC;AB ˢ ?> 8ˢ?!ˢ ?< < ! ?= ; ˢ #?ˢ B ˢ ! =#ˢ #?ˢ / ;8 < =# ˢ ?;ˢ ?= =# ?= ˢ?!ˢ &!# # ˢ ? ˢ #ˢ #B ;ˢ < # =A ˢ !?;ˢ < " =Aˢ #B ˢ ! ˢ &8 @# ?= ˢ = ˢ D !?; ˢ #B >ˢ K;?@ ˢ #B ;#? ˢ % " ˢ = ˢ !CD9ˢ !@;> ˢ #B ˢ ? #Bˢ?!ˢ 88 A =@ ˢ @?=# = ˢ =ˢ #B ˢ 8 < ˢ?!ˢ AB#ˢ = ˢ @#ˢ?!ˢ/ ;8 < =#ˢ @?A= W 9ˢ =Aˢ #B ;ˢ C#B?; #>ˢ E #Bˢ ;# ! @ # ?= ˢ #B # !ˢ #B >ˢ ? ˢ =?#4ˢ #B >ˢ B 8ˢ =?#ˢ ?=8>ˢ D ˢ ; @# ˢ !;?<ˢ ?# =Aˢ =ˢ #B ˢ ˢ &8 @# ?= 4ˢ = ˢ F@8C ˢ #B ˢ < # =A4ˢ C#ˢ !ˢ #B >ˢ B 'ˢ K; C< ˢ #?ˢ # >ˢ ?;ˢ ?# ˢ 4K =ˢ #B ;ˢ ?# ˢ B 8ˢ =?#ˢ D ˢ ; @"?= ˢ = ˢ #B >ˢ #B <! 8 ˢ B 8ˢ D ˢ !>= ˢ =ˢ #B ˢ !?C< ˢ ?!ˢ ˢ #B?CL = ˢ < ;" ˢ D !>

$ (' ˢ ˢ D>ˢ = ˢ @#ˢ?!ˢ/ ;8 < =#ˢ K !#ˢ #B ˢ >ˢ 8ˢ &8 @#?; ˢ ?!ˢ ?< < ! ?= ; ˢ !?;ˢ B>; ˢ ?;ˢ DC;AB ˢ #?ˢ/ ;8 < =# ˢ ?;ˢ ?= =# ?= ˢ?!ˢ &!# # ˢ ; ˢ ?; = ˢ #?ˢ # " ˢ #B ˢ ? #Bˢ?!ˢ 88 A =@ ˢ @?=L # = ˢ =ˢ #B ˢ 8 < ˢ?!ˢ AB#ˢ D !?; ˢ #B >ˢ K;?L @ ˢ #?ˢ #B ˢ &8 @# ?=ˢ %B ; !?; ˢ %B ˢ 0?; ˢ ?< < !L ?= ; ˢ) ; @ ˢ = ˢ #B ˢ &!# # ˢ ?!ˢ / ;8 < =#ˢ ? ˢ KK? =# *=# < # ?= ˢ #?ˢ D ˢ < ˢ ?!ˢ #B ˢ ˢ @#4ˢ #?ˢ #B ˢ < # =A ˢ ?!ˢ #B ˢ !; B?8 ; ˢ =ˢ =>ˢ (B>;

2*. *ˢ ,+*ˢ
9 6 0ˢ
& ˢ - ˢ <H
<+ 0ˢ & ˢ
+ &ˢ +,ˢ H
0 - ˢ +ˢ / ˢ
,- (ˢ / ˢ
1 - +* ˢ +,ˢ
)+6 6 ,H
+ * ˢ +
/ ;8 < =#
?;ˢ ?= =L
?=

' ' '*=B ' ' U ' ';

2B ; ' &8 @# ?= ' ; ' #' #B ' #>< ' #?' D ' < ' ?!' ?>< < !# ?= ; ' #?' #B ' / ;8 < =#' #B #' ?D =@ ' < >'D 'A ='J W?' = ' ; = ' = ' F#; @#?!'#B ' ! ' @#' #?' D ' # =#' #?' #B ' (B ; 8! ' 8 ;" ' ?!'#B ' # ' B>; '#?'#B ' 8! @#' !?;!

$ (' ' D>' = ' @#' ?!' #B ' / ;8 L < =#4 !#?; =A' #B ' K; D # ; =' = # ; ' EB?' 2 ; '#B;C #' !;?<'#B ;' BC;@B ' =@ '#B ' ! ; #' ?!' J =C ;>' ' #B ' K; =#' *=@C<D =#' =' C@B' BC;@B ' ; ' KK? =# ' CK?=' =# < # ?= ' #B ; ?!' #?' !#' !;?<' #B ;' < = # ; ' =' #B ' K ; B 4 = ' #?' ; <? ' #B < 8 ' !;?<' #B ' < =! ' = ')8 D ' #B ; C=#?' D 8?=A =A' D #E F#' = ' 2 B #9' !?= >'= F#?@?< ' %B #' #B 'K; D # ; =' = !# ; ' !?;< ;8>'KC#' ?C#' < >' =# ;'K @ D8>'#B ; #?' = ' #?' #B ' !! @#' #B ' ' @#' < >'D ' < ' !! @#C 86' %B 'O?; ' ?>< ! ?= ; '); @ ' = '#B '&!# # ' ?!' / ;8 < =#4 ? ' ?; = ' 8 ## ; ' ?!' B?;= =A' #?' D ' ; @#' CK?=' #B ' !?; ' @#4 = ' ?; = ' #B ' < ' #?' D ' K; =# ' = ' KCD8 #B ' #' #B ' < ;@ #' ;?! '?!'& =DC;AB' ='#B 'C! 88 !?;<

% &* ' !# ' ?>< ! ?= ;' ?C< ' #B ' / ;8 < =#' # 88' E #? ! >' #' # =' ' @8?@"' = ' @?=# =C ' 88' < ## ; ' = ' K;?@ !# ' # 88' #B #' #><

%' &+* ') 4

'F; 4' 4+ 4,

% &' ?88 ' ?!' / ;8 < =#' @ 88

+& &&%' ?!' /; @ =@ ' =' ! ?C; ' ?!' ?D ;#' & ;8 ' ?!' O?#B =' A = #' #B ' & ;8 ' ?!' ?FDC;AB' Q' ?#B ;

' ' ' ' Q' 0 + ' #B ' 1 =A' = '3C = ' # ' = '#B '& # # '?!' / ;L 8 < =#' ?=! ; =A' #B #' ?D ;#' & ;8 ' ?!' O?#B =' CK?=' #B ' ! !# =' >' ?!' K; 8' 8 #' D =A' K ; ?= 88 ' K; =#' ' ; K; ! =#4 #B #' #B ; ' B =A' D =' ' K # =#' ?!' ?=?;' A; =# 'D>' & =A' J < '#B ' F#B' #?' B 'K; @ ! ?;4 ;"' O?; ' ED ##8 4' @; # =A' B <' = 'B ' ; ' 8 '& ;8 '?!' O?#B =' EB @B' ' # '#B ' # =#B' ?!' JC8>' * I1' H' = ' F' > ; ' = '#B ; ' D =A' =?#B ;' K # =#' A; =# 'D>' 1 =A' B ;8 '#B ' (@?= '#?' #B ' ' ?D ;#' & ;8 ' ?!' O?#B =' B < 8! ' # '#B '#E =#>' #B ; ' >' ?!' @#?D ;' * ' @9H =# ' AB#' EB @B' '; 8 # '#?' #B ' ' ; A = 88' K # =#' = 'EB ;D>'B ' '?; = ' #?' # " ' K8 @ ' = ' K; @ =@ ' @?=!?;< ' #B ;#?' ?#B' EB @B' K # =# ' C= ;' #B ' A; #' (88' E ; ' K;? C@ 'D>' B <' = ' =' ; A ; 'J ?!'#B ' '& ;8 ' 'K;?# #' %B #' #B '@ 88 =A' ?!'#B ' & ;8 ' ?!' D ;9' @?;= 4' ?FDC;AB4' 1 88 4' =A#?=4') 88?E >4' 4 (!?;#B' = ' O C ; 8 ' =' #B ' ?88 ' ?!' / ;8 L

< =#' D !?; ' B <4' < >' =?#' K; C A ' B <' ?!' B ' ; AB#' ?!' K; @ =@ ' D !?; ' #B < ' C#' #B #' B ' < >'D ' =" ' = ' @ 88 ' = F#' = ' *<< #8>' !# ;'#B '& ;8 '?!' (#; #B<?; ' @?=!?;< '#?'#B '!?;L ' K # =#' ?!' ?=?;' K;? C@ ' D>' B <' O>" ' #B ; !# ;' CK?=' #B ' #E =#>' ! !#B' >' ?!' #B ' ' <?=#B' ?!' K; 84' #B ' ' & ;8 ' #' #B ' @ 88 =A' ?!' #B ' ?88 ' ' ; ' #B #' ?; ;' < AB#' D 'A; =# ' !?;' @ 88 =A' B <' =' #B ' ?88 ' = F#' #?'#B '& ;8 '?!' (#; #B<?; ' = ' D !?;' '' #B ' ?#B ;' & ;8 ' D? ' = < ' 'B > =A' !?;< ;8>'K;?# # '#?'#B 'KC;L K? ' = 'K;? C@ '#E?' / # =# '!?;' = #;C@# =A' B ' K; @ =@ 4' EB ; CK?=' #' E ' ?; ; ' #B #' #B ' & ;8 'EB?'@?<K #'E #B'#B ' '& ; '?!' O?#B =' !?;'K; @ =@ ' B 88' A ' =' #B ;' ; ?= 'EB>'B ' CAB#' =?#' #?' D 'K; ! ;; '#?' #B <4' D #E F#' = ' #B ' = F#' > #' ?!' / ;8 < =#4 ;# ! =A' #B <' !' #B >'! A '#B ; =4' #B #' B ' B?C8 'D ' ; =" ' = ' = 8 '@?=!?##= '#?' B ' / # =# ' = ' #' #B ' = F#' > #' ?!' / ;8 < =#' D =A' #B '#E =#>' =>=#B' >' ?!' #B ' '<?= #B' ?!' K; 84' %B ' ! '& ;8 '; !C< ' B '!?;< ' !>; '!?;' ; ="' =A' B <' @?=!?;< '#?' B ' K # =# ' = ' =' ; A ; '#B ; 'E ; ' =?' ; ?= ' =?;' ?D @# ?= 'A =' =' #?'#B '@?=#; ;4' @?=!?;< '#?' #B ' *=# < # ?= ' < '#B ' 8 !#' > #' ?!' / ;8 < =#' ' X ; '#B #'#B ' / # =#' A; =# '#?' ;"' ! ; #' & ;8 ' ?!' O?#B =' < AB#' D ' ' = ' 8!?' #B ' ?#B ;' / # =#' A; =# '#?' B < 8! ' ?#B' EB @B' / # =#' D =A' ' =' K; =@ ' ?!' #B ;' # ' ?<L < ! ?= ;' = '#B ' / ;8 < =#4 '@; '#B #' @?=L !?;< ' #B ;#?' ?; ;' < >' D 'A; =# ' !?;' ; =" =A' = '@ 88 =A' B <' =' #B ' ?88 ' ?!' / ;8 < =#' = F#' = '*<< #8>' !# ;'#B '& ;8 '?!' (#; #B<?; '*=' ; A ; '#B #' !'#B '& ;8 'EB?' ; 'K; =#8>'; ="L ' !# ;' (#; #B<?; ' = ' D !?; ' #B ' ' & ;8 4' E?C8 'K;? C@ '#B ;' K # =# ' *#' E 88' KK ;' #B #' #B ' < ' ; 'K? # ; ?;' #?'#B '!?; 'K # =#' A; =#L ' #?' ;" ' & ;8 '?!' O?#B =4' = ' #' B =A' D =' 88 A ' D>' ?< ' < <D ; ' ?!' / ;8 < =#4 /; <?'%B #'#B ; 'D A' ! ; 88' =? < =' ; =" ' =' #B ' ?88 ' D !?; '#B ' & ;8 '?!' O?#B =' EB?! ' K; @ =@ ' B '=?E' @?=#; ;# ' = '#B >' D =A' =' K?! ! ?=' <C #' D '@ # ' = ' B ; 'D !?; '#B >' @ =' D 'KC#' !;?<' #D ;' K?!# ! ?=4 = 'K ;# @C8 ;8>' #B '& ;8 '?!' ?FDC;AB' EB^' ' < =?;' = ' B ' =?' C; #?; 4' #B '& ;8 '?!' / ;#B' EB?' E ' ?= ' ?!'#B <' D =A' =@ K D8 '#?' @#' = '#B ' O?; ' 88 = = ' = '?#B ;'= ;'B =A' @@ K# '(@C= ?'%B #'#B ' @?<K # # ?=' E ' <? '!?;< ;8>' D !?; '#B ' / ;L 8 < =#' =' ==?' * ' 7 9 = ' & AB#>' !> ' = ' D =A' #B =' D # '*#' E '!CD< ## 'D>'#B 'K ;9' # '#?'#B '8 # ' 1 =A' = 'E ' =?#' # ;< = 4' = ' #B ;!?; '@; '#B #'#B ' < ## ;' < AB#' D ' 8 > ' = '#B '8 " ' ?D @# ?= 'D =A' < 'D>'!?< '?#B ;' < <D ; '?!' / ;8 < =#4 =' D B '?!' #B ' & ;8 '?!') 88?E >' W' #B #' B ' ' < =?;' = ' #B #' #B ' < ## ;' 2 '!CD< ## ' '! ' ' = '=?#' # ;< = ' 2 B ;9' '=#?' #' E ' = E ; ' D ' #B ' & ;8 ' ?!' O?#B =4' %B #' '#?'#B '! ; #4 ! ; 88' ?!'#B '& ;8 'EB?'@?<9' K # 'E #B'B <' ?CAB#' #?' D 'K; =#4 = ' ?' D =A

D>' ?; ; '#?' D ' =#'#?'#B ' B ; !!' 8 ;" '?!'#B ' B>; '#?' D ' =# < #'#?'#B ' !; B?8 ; ' #'#B ;' ' # =A4'

% &* ' # ' ?<< ! ?= ;' ?C;= 5' #B ' / ;8 < =#'# 88' !;> >' #'# ='='@8?@"' = ' @?=# =C ' 88'@ C! 'Q'K;?@ ! '# 88'#B #'# <

%' &+* ') 4' 4

', *4' 4+ 4,

% &' ?88'?!'/ ;8 < =#'@ 88

% &* ' # ')?<< ! = ;' ?C;= ' #B ' / ;8 < =#'# 88'#E >'= F#' #'# ='' @8?@"' = ' @ =# =C ' 8'@ C! ' = 'K;?@ ! ' # ''' #B #'# <

%' &+* ') 4

4 ', ,4' 4+ 4,

% &' ?88'?!'/ ;8 < =#'@ 88

9)+6 '
',+*H
, .'< *
,"7,

+& &+' #B #'k ' @?; ' !;?<' '/ ;8 < =#'
' = 'K; @ =A'D ' ;@B '#?'"=?E' !' #'E '
#B '!?;< ;'@C #?< '#B #'!?; ! # 'K ; ?='D B? '
#?'@ # '#B ' ?= #?; ' #?'#B ' !?;! 8#; 4'D !?; '#B >'
@?C8 ' K;?@ ' #?' ; C@ '#B ;' !?;! #C; ' = ' '
?<< ## ' ?; = '#B ; = =#'EB?'E ; '?; 8 '
#?' ; K?;#'EB #'#B >'! = '#?'#B ' / ;8 < =#

% &* ' # ' ?<< ! ?= ;' ?C;= '#B '
/ ;8 < =#'# 88'#BC;! >'= F#' ? ' @?=# =C '
88'@ C! ' = 'K;?@ ! '# 88'#B #'# <

%' &+* ') 4

', ,**4' 4*` 4,

% &' ?88'?!'/ ;8 < =#'@ 88

% &* ' # ' ?<< ! ?= ;' ?C;= '
#B ' / ;8 < =#'# ''' #?' <?;;?E' #'# = @8? "'
= ' @?=# =C ' ''@ C! ' = 'K;?@ ! '# 88'#B #'
<

%' &+* ') 4

', ,***4' + ,

% &' ?' '?!'/ ;8 < =#'@ 88

&' ?<< ! ?='D>'#B '!; B?8 ;'?!'#B '(B>; '
?!' ;'K;? C@ '&8 @# =A' !'! !; = ' ?=#AC<;>'
#?' D ' ='?!'#B ' ?; < ! ?= ;'#?' ; K; =#'#B '
' B>; ' ='K8 @ '?!'#B ' @ !8' 0 ;'?!' 8 ;'
EB @B' ?<< ! ?='E ' 'Q' !'!!; =@ ' L
< ## 'B =A'# " ='#B '? #B '?!' 88 =@ ' = '
/ ;8 < =#

+& &+'#B #'#B ' 8 ;" '?!' A !# ;' @ C! '
#; =! ;> ' ' C #' ?CD8'?!'#B '2 #< = # ;'K; =#9'
' ?=! ! ?='?!'! #B'#?'D 'D;?CAB#' =' 'K; =#'
='/ ;8 < =#'#B '= F#' > #' 4'

% &* ' # ' ?<< ! ?= ;' # ?C;= '
#B ' / ;8 < =#'# ''' ?= >' = F#' #'# ='
@8?@"' = ' @?=# =C ' ''@ C! ' = 'K;?@ ! '
''' #B #'# <

%' &+* ') 4

', , *4' 4+ 4,

% &' ?' '?!'/ ;8 < =#'@ '

% &' $&((* ' $'$ *% 'C= ;'E; ## =' %B' ?=9'
E '#B ' >'K;? C@ ' ; ' = '@?= ; 'E?; '
D>'E?; ' ='K; =@'?!'#B ;' # ' AB' ?<L
< ! ?= ;' = '#B '&!# # '?!'/ ;8 < =#' = 'D =A'

?# ' = ' KK;? ='E ' ?; = '#?'D ' ; @?; L
' ='#B 'D??" '?!'/ ;8 < =#4'?!!'#B 'EB @B'
$&((* ' $'$ *% '#B '% =?;'!?''?E

2 ' $ ' ' "70'3

0% . ') '#B ' AB#?!' #C; ' = 'E?;" '?!'
; # ?=' = '/;? =@ 4' ?' ?'! ;' < = ! #'#B '
A?? = ! 4'E ! ?<4' < 'K?E ;'?!') ? 4' '#?'8 '
< =' = F@C! D8 5' > #' ; '#B >' =?#' C!! @ =#'#?'
A '#B #'"=?E8 A '?!') ? ' = '?!' B 'E'8'EB @B'
'= @ ! ;>'C=#?' 8 # ?=4'%B ; !?; ' #'K8 '#B '
0?; ' #' C= ;>'# < ' = ' =' ;' < == ;'#?'
; 8'B < 8!4' = '#?' @8 ;'#B #'B ' E '' C=#?'
B ' BC;@B5' = ' !# ;E ; 4'!?;'#B 'D ## ;'K; ! ; 9'
=A' = 'K;?K A # =A'?!'#B '#;C#B4' = '!?;'#B ' <?; '
C; ' # D8 B< =#' = ' @?<!?;#' ?!' #B ' BC;@B'
A =! 5'#B '@?;;CK# ?='?!'#B '!8 B' = '#B ' < 8 @ '
?!' (# =' = '?!'#B ' E?;8 4' #?' @?<< #'#B ' < '
EB?'>' C=#?' E; # =A5' EB @B' < " #B' 88 ' ?8>'
(@; K#C; '#?'D '<? #'= @ ! ;>4'#B? '!?;< ;'E > '
?!')? '; 8 =A' B ' E ''C=#?' D 'K ?K8 'D =A' '
=?E'@ !

S' ' +& '#B '= < '?!'#B ' ?8>'(@; K#C; 4'?;'#B '
E?; ' ?!')? 'E; ## =4' ;' =?E'@?=# = ' 88'#B '
D??" '?!'#B ' 8 ' = ' E'% # < =#4'EB @B' ; '
#B '$ ' 3 ' ' :.+ *4+')= 4'&F? C 4'
0 #@C 4' C<D ; 4'+ C! ;K=?<>4'J? BC 4'JC A 4
C#B4' *' (<C 84' **' (<C 84' *' 1 =A 4' **' 1 =A 4
*' B;?= @8 4'**' B;?= @8 4'&W; 4' B < D4'& #B ;4

M /

' ' (

! ' / 8< 4 /;? ;D 4 &@@8 # 4 %B ' (?=A' ?!'
(?=A 4 * B4 J ; < B4 0 < =# # ?= 4 &W " 84
+ = 84 ? 4J? 84 <? 4 D B4J?= B4 @ B4
BC<4 DD ""C"4 p KB = B4 AA 4 p @B 9
; B4 8 @BO' $ ' ' 4' ' %B ')? L
K 8 ' @@?; =A'#?' ##B E4 ;"4OC" 4J?B=4%B '
@# '?!'#B ' K? #8 4 / C8 '&K #8 '#?'#B ' ?< = 4
*' ?; =#B = 4 **' ?; =#B = 4) 8 # = 4&KB = 4
/B 8 KK = 4 ?8?! = 4 *' %B ! 8?= = 4 **' %B ! 9
8?= = 4 *'#?' % <?#B>4 **'#?' % <?#B>4 #?' % #C 4
#?' /B 8 <?=4 %B ' &K #8 ' #?'#B ' D; E 4 %B '
&K #8 '?!'4J < 4 %B '! ; # = ' @?= '&K #8 '?!'
/ # ;4 %B '! ; # @?= ' = '#B ; '&K #8 '?!'J?B=4
%B ' &K #8 ' ?!'JC 4 %B ' 8 # ?=' ?!' J?B=' '
88 EB @B' ; ' A =' D>' = K ; # ?=' ?!')? ' #?' D '
#B ';C8 '?!'! #B' = '8 ! 4

' % &' ??" ' @?<<?=8>'@ 88 ' K?@;>KB 4 =?#
D =A'?!' = ' = K ; # ?=4 ; ' =?' K ;# ?!' #B '
=?=' ?!'#B ' (@; K#C; 5 = '#B ; !?; ' ; '?!'=?'
C#B?; #>' =' #B ' BC;@B'?!')? 4 =?;' #?' D ' =>'
?#B ;E ! ' KK;? 4 ?;' < ' C! '?!4 #B =' ?#B ;'
BC< =' E; # =A

U4 % &4 C#B?; #>' ?!' #B ' ?8>' (@; K#C; 4 !?;'
EB @B' #' ?CAB# #?' D ' D 8 ' = ' ?D > 4 9
K = #B' =?# CK?=' #B ' # # <?=>'?!' =>' < =4 ?;'
BC;@B5' DC# EB?88>' CK?=')? ' XEB?' ' #;C#B' #'
8!' #B ' C#B?;'#B ; ?!Z = '#B ; !?; ' #' '#?' D '
; @ 4D @ C! ' #' '#B ' 2 ?; '?!')?

' ' 2 &' < >'D ' <? ' = ' = C@ 'D>'#B ' # # L
<?=>'?!'#B ' BC;@B'#?' ='B AB' = '; ; =# # <'
?!' #B ' ?8>' (@; K#C; ' = '#B ' B =8 = ! ' ?!'
#B ' < ## ;4 #B ' " %' ?!' #B ' ?@#; = 4 #B ' < L
#>'?!' #B ' #>8 4 #B ' @?= =#'?!' '' #B 'K ;# 4 #B '
@?K ' ?!' #B ' EB?8 4 XEB @B' ' #?' A ' 88' A8?;>'
#?')? ' #B ' !C88' @? ;>' #' < " ' ?!' #B ' ?=8>'
E >'?!' < = ' 8 # ?=4 #B ' < =>' ?#B ;' =@?<L
K ; D8 ' F@ 88 =@ 4 = ' #B ' =# ; ' K ;! @# ?='
#B ; ?!4 ; ' ;AC< =# ' EB ; D>' #' ?#B' DC=L
=#8>' =@ ' #' 8!'#?' D ' #B ' 2 ?; '?!')? 5
4> #' =?#E #B # = =A4 ?C;' !C88' K ; C ?=' = ' ! C9
; =@ ' ?!' #B ' =! 88 D8 ' #;C#B4 = ' = ' C#B?; #>'
#B ; ?!4 ' !;?<' #B ' =E ; ' E?;"' ?!' #B ' ?8>'
(K ; #4 D ; =A' E #= ! ' D>' = 'E #B' #B ' 2 ?; 4 ='
?C;' B ;#

q' % &' EB?8 ' @?C= 88' ?!')? ' @?=@ ;= =A' 88
#B =A ' = @ ! ;>' !?;' B ' ?E=' A8?;>4 < = ' 8 8 9
?=4 ! #B' = '8 ! 4 ' #B ;' FK; !8>' #' ?E=' ='
(@; K#C; 4 ?;' D>' A?? ' = ' = @ ! ;>' @?= NC =@ '
< >'D ' C@ ' !;?<' (@; K#C; 5 C=#?' EB @B'=?L
#B =A' #' =>'# < ' ' #?' D ' 4 EB #B ;' D>'= E'
; 8 # ?= ' ?!' #B ' (K ; #4 ?;' #; # ?= ' ?!' < =5
= ;#B 8 ! 4 E ' @"=?E8 A #B ' =E ; ' 3C< 9
= # ?='?!'#B ' (K ; #?!')? '#?' D ' = @ ! ;>'!?;'#B '
=A' C= ; # = =A' ?!' C@B' #B =A ' ' ; ' ; L
8 ' ='#B 'E?; 5 = '#B #' #B ; ' ; ' ?< ' @ ;L
@C< # =@ ' @?=@ ;= =A' #B ' E?; B K' ?!')? 4 =

A? ;=< =# ?!' #B ' BC;@B4 @?<<?=' #?' BC< ='
@# ?= ' = ' ?@ # 4 EB @B' ; ' #?' D ' ?; ; 'D>'
#B '8 AB#?!'= #C; ' = ' B; # ='K;C =@ 4 @@?; L
=A' #?' #B ' A = ; 88' ;C8 ' ?!' #B ' E?; 4 EB @B' ; '
8E >'#?' D '?D ;

V' 0O' #B =A ' ='^(@; K#C; ' ; ' =?# 8 " ' K8 ='
=' #B <! 8 4 =?;' B" ' @8 ;' C=#?' 885 > #' #B? '
#B =A 'EB @B' ; ' = @ ! ;>'#?' D '"=?E=4 D 8 4
= ' ?D ; ' !?;' ! 8 # ?=4 ; ' ?' @8 ;8>' K;?L
K?C= ' = '?K = ' =' ?< ' K8 @ ' ?!' (@; K#C; '
?;' ?#B ;4 #B #' =?# ?=8>' #B ' 8 ;= 4 DC# #B ' C=L
8 ;= 4 =' ' C ' C! ' ?!' #B '?; = ;>' < = 4 < >'
='#?' ' C!! @ =# C= ; # = =A'?!'#B <

' % &' 8 '% # < =#' =' D; E'XEB @B'E '#B '
= # ' 8 =AC A ' ?!' #B 'K ?K8 '?!')? ' ?!' ?8 ^' = '
#B ' E'% # < =#' ='); "' XEB @B' #' #B '# < '
?!' #B ' E; # =A' ?!' #' E ' <? # A = ; 88>' "=?E='
#?' #B ' = # ?= ^' D =A' << #8>' = K ; 'D>')? 4
= 'D>'B ' =AC8 ;'@ ; ' = 'K;? =@ ' " K#' KC; '
=' 88' A 4 ; ' #B ; !?; ' C#B =# @ '5 ?' 4 ='
88' @?=#;? ; ' ?!' 8 A ?=4 #B ' BC;@B' '! = 88>'
#?' KK 8' C=#?' #B <5 DC#' D @ C '#B '?; A = 88'
#?=AC ' ; '=?# "=?E='#?' 88' #B 'K ?K8 '?!')? 4
EB?' B '; AB# C=#?4 = ' =# ; !#' ='#B '(@; K#C; 4
= ' ; ' @?<< = ' =' #B ' ! ;' ?!')? ' #?' ; '
= ' ;@B' #B <4 #B ; !?; ' #B >' ; ' #?' D ' #; = L
8 # ' =#?'#B ' C8A ;'8 =AC A '?!' ;>'= # ?='C=#?'
EB @B' #B >'@?< 4 #B #'#B 'E?; '?!')? ' E 88 =A'
K8 =# !C88>' =' 884 #B >'< >'E?; B K' B <' =' =' @L
@ K# D8 ' < == ;5' = ' #B;?CAB' K # =@ ' = '@?<L
!?;#?!'#B ' (@; K#C; 4 < >'B 'B?K

G' % &' =! 88 D8 ' ;C8 ' ?!' =# ;K; # # ?='?!' (@; KL
#C; ' '#B ' (@; K#C; ' #' 8!5 = '#B ; !?; 4 EB ='
#B ; ' ' 'NC # ?=' D?C# #B ' #;C ' = ' !C '' = '
?!' =>' (@; K#C; 4 XEB @B' ' =?# < = !?8 'DC# ?= ^'
#' <C # D ' ;@B ' = ' "=?E='D>' ?#B ;' K8 @ '
#B #' K "' <?; '@8 ;8>

' % &' !CK; < ' C A ' D>' EB @B' 88' @?=#;?9
;! ' ?!' 8 A ?=' ; ' #?' D ' # ;< = 4 = ' 88'
@; ' ?!' ?C=@ ' 4 ?K = ?= ' ?!' =@ =#' E; # ; 4
?@#; = '?!'< =4 = 'K; # '!K ; # 4 ; '#?' D ' F L
< = 4 = ' =' EB?! ' =# =@ ' E ' ; '#?' ; #4 @ ='
D ' =?' ?#B ;' DC#' #B ' B?8>' (K ; #' K " =A' =' #B '
(@; K#C;

' ' $ ' , ' !' ' ' '

' % & &' ' DC#' ?= ' ?=8>'8 =A' = '#;C ') ? 4
EB?' ' =! = # ' =' D =A' = ' K ;! @# ?=4 ' <? #'
KC; ' K ; #4 = D8 4 E #B?C#' D? >4 K ;# 4 ?;' K '
?= 4 <<C# D8 4 << = 4 # ;= '4 =@?<K; B =L
D8 4 8< AB#>4 <? #' E ! 4 <? #' B?8>4 <? #' !; 4
<? #' D ?8C# 4 E?;" =A' 88' #B =A ' @@?; =A'#?' #B '
@?C=@ 86' ?!' B ' ?E=' <<C# D8 ' = ' <? #' ; AB# ?C '
E!884 !?;' B ' ?E=' A8?;>4 <? #' 8? =A4 A; @ ?C 4
< ;@ !C864 8?=A' C!! ; =A4 DC= =#' =' A?? = ! ' = '
#;C#B4 !?;A =A' = NC #>4 #; = A; ! ?=' = ' =

J@! K#4 #B >ˢ E ; ˢ B KK>ˢ =ˢ #B ;ˢ @?< <C= ?=ˢ E #Bˢ)? 4 = ˢB ˢ ?< = ?=ˢ ? ;ˢ #B ˢ@; #C;

ˢ ˢ $ ˢ

ˢ) +ˢ #B ˢ A; # ; #?;ˢ ?!ˢ 88ˢ #B =A 4 ?#Bˢ CKL B?8 4 ; @#4 K? ˢ = ˢ A? < ˢ 88ˢ @; #C; 4 @# ?= 4 = ˢ #B =A 4 !;?<ˢ #B ˢ A; # # =ˢ#?ˢ #B ˢ 8 #4 D>ˢ B ˢ <? # E ˢ = ˢ B?8>ˢ K;? =@ 4 @L @?; =Aˢ #?ˢ B ˢ =! 88 D8 ˢ !?; "=?E8 A 4 = ˢ #B ˢ !; ˢ = ˢ <<C# D8 ˢ@?C=@ 88ˢ ?!ˢB ˢ ?E=ˢ E 884 #?ˢ #B ˢ K; ˢ?!ˢ #B ˢ A8?;>ˢ?!ˢ B ˢ E ?<4 K?E ;4 C # @ 4 A?? = ! ˢ = ˢ< ;@>

J 0% ') ˢ =ˢ; 8 # @ ˢ#?ˢ#B ˢ!?; "=?E8 A ˢ = ˢ @; ˢ?!ˢ)? 4 #B ˢ! ; # @ C 4 88ˢ #B =A ˢ@?< ˢ ˢK ! ˢ <<C# D8>ˢ = ˢ =! 88 D8>5ˢ > # D>ˢ #B ˢ < ˢ K;? =@ 4 B ˢ?; ; #Bˢ #B <ˢ #?ˢ ! 88ˢ ?C#ˢ @@?; =Aˢ #?ˢ #B ˢ = #C; ˢ ?!ˢ @?= ˢ @ C! 4 #B ;ˢ= @ ! ; 8>4 !; 8>4 ?;ˢ @?=# =A =#8>

. ˢ) +ˢ =ˢ B ˢ ?; = ;>ˢ K;? =@ ˢ < " #Bˢ C ˢ ?!ˢ < = 4 > #ˢ ˢ!; ˢ#?ˢ E?;"4 E #B?C#4 D? 4 = ˢ A = #ˢ#B <ˢ #ˢB ˢK8 C;

U[% &ˢ 8< AB#>ˢ K?E ;4 C= ;@B D8 ˢ E ?<4 = ˢ =! = # ˢ A?? = ! ˢ ?!ˢ)? 4 ?ˢ ! ;ˢ < = ! # #B < 8 ˢ =ˢ B ˢ K;? =@ 4 #B #ˢ #ˢ F# = #Bˢ #ˢ 8!ˢ =ˢ #?ˢ #B ˢ ! ; # ! 884 = ˢ 88ˢ ?#B ;ˢ = ˢ ?!ˢ =A 8 ˢ = ˢ < =4 = ˢ#B #ˢ=?# D>ˢ ˢD # ˢK ;< ! ?=4 DC#ˢ C@Bˢ ˢ B #Bˢ ?>= ˢ E #Bˢ #ˢ ˢ<? # E ! ˢ = ˢ K?E ;!C88ˢ D?C= =A4 = ˢ?#B ;E > ˢ ?; ; =Aˢ = ˢ A? ;= =Aˢ ?!ˢ #B <4 =ˢ ˢ< = !?8 ˢ K = # ?=4 #?ˢ B ˢ?2=ˢ B?8>ˢ = 4 > #ˢ ?ˢ ˢ#B ˢ =!C ' = ! ˢ#B ; ?!ˢ K;? #Bˢ ?=8>ˢ !;?<ˢ #B ˢ @; #C; 4 = ˢ =?# !;?<ˢ)? 4 EB?ˢ D =Aˢ <? # B?8>ˢ = ˢ; AB# ?C 4 = #B ;ˢ ˢ=?;ˢ@ =ˢ D ˢ#B ˢ C#B?;ˢ?;ˢ KK;? ;ˢ?!ˢ =

5ˢ % &ˢ <? # E ˢ ; AB# ?C ˢ = ˢ A; @ ?C ˢ) ? ˢ ?#Bˢ ?!# =ˢ # < ˢ 8 ˢ !?;ˢ ˢ ?=ˢ B ˢ ?E=ˢ @B 8L ; =ˢ#?ˢ < = !?8 ˢ # <K# # ?= 4 = ˢ #B ˢ @?;;CK# ?=ˢ ?!ˢ #B ;ˢ ?E=ˢ B ;# 4 #?ˢ @B # ! ˢ #B <ˢ !?;ˢ #B ;ˢ !?;< ;ˢ = 4 ?;ˢ #?ˢ @? ;ˢ ;<#?ˢ #B <ˢ #B ˢ B =ˢ #; =A#Bˢ ?!ˢ @?;;CK# ?=4 = ˢ @ #!C ' = ! ˢ ?!ˢ #B ;ˢ B ;# 4 #B # #B >ˢ < >ˢ D ˢ BC<D8 4 = ˢ #?ˢ ; ! ˢ #B <ˢ#?ˢ ˢ<?; ˢ@8? ˢ = ˢ @?= # =# K = =@ ˢ!?;ˢ #B ;ˢ CKK?;# CK?=ˢ B < 8!4 = ˢ #?ˢ < " ˢ #B <ˢ <?; ˢE #@B!C88ˢ A =!# 88ˢ !C#C; ˢ ?@@ ?= ˢ ?!ˢ =4 = ˢ!?;ˢ C= ;>ˢ K#B ;ˢ C # = ˢB?8>ˢ =

ˢ (ˢ !?;ˢ #B? ˢ E @" ˢ = ˢ C=A? 8>ˢ < =ˢ oB?<ˢ)? 4 ˢ ˢ ; AB# ?C ˢ C A 4 !?;ˢ !?;< ;ˢ = ˢ ?#Bˢ D8 = ˢ = ˢ B ; =4 !;?<ˢ #B <ˢ B ˢ =?# ?=8>ˢ E #Bˢ B?8 #Bˢ B ˢ A; @ 4 EB ; D>ˢ #B >ˢ < AB# B ˢD =ˢ =8 AB#= ˢ =ˢ #B ;ˢ C= ; # = =A 4 = ˢ E;?CAB# CK?=ˢ =ˢ #B ;ˢ B ;# 5 DC# ?< # < ˢ 8 ?ˢ E #Bˢ ; E #Bˢ #B ˢ A !# ˢ EB @Bˢ #B >ˢ B 4 = ˢ FK? #Bˢ #B <ˢ #?ˢ C@Bˢ ?D @# 4 ˢ #B ;ˢ @?;;CK# ?=ˢ < " ˢ ?@@ ?= ˢ ?!ˢ =4 = ˢ E #B 88ˢ A ˢ #B <ˢ ? ;ˢ #?ˢ #B ;ˢ ?E=ˢ8C # 4 #B ˢ# <K# # ?= ˢ ?!ˢ #B ˢ E?;8 4 =

#B ˢK?E ;ˢ?!ˢ (# =4 EB ; D>ˢ #ˢ @?< ˢ#?ˢK ! 4 #B # #B >ˢB ; =ˢ #B < 8 4 =ˢ C= ;ˢ #B? ˢ < = ˢ EB @Bˢ)? ˢC #Bˢ !?;ˢ #B ˢ ?!# = =Aˢ?!ˢ ?#B ;

>ˢ (ˢ #B ˢ K;? =@ ˢ ?!ˢ)? ˢ ?#Bˢ =ˢ A = ; 88ˢ ; @Bˢ #?ˢ 88ˢ @; #C; 4 ?ˢ !# ;ˢ ˢ <?; ˢ K @ 88ˢ < == ;ˢ #ˢ# " #Bˢ @ ; ˢ?!ˢ B ˢ@BC;@B4 = ˢ K?! #Bˢ 88ˢ #B =A ˢ#?ˢ #B ˢA?? ˢ#B ; ?!

6 ˢ $ ˢ ˢ ˢ ˢ ˢ ˢ ˢ !ˢ ˢ ' % ˢ '%*%$)

ˢ ' ˢ! ; #K ; =# ˢD =Aˢ C@ ˢD>ˢ#B ˢ CD# 8#>ˢ = ˢ# <K# # ?=ˢ ?!ˢ (# =4 == ˢ =ˢ # =Aˢ#B ˢ!?;L D =ˢ!;C #ˢ %B ˢ#B ;ˢ =ˢ)? ˢ E ˢ K8 4 @L @?; =Aˢ #?ˢ B ˢ E ˢ = ˢ B?8>ˢ @?C=@ 88ˢ #?ˢ K ;< #4 B =Aˢ KC;K? ˢ#?ˢ?; ;ˢ #ˢ#?ˢ B ˢ?E=ˢ A8?;>

ˢ ˢ #8 ˢ =ˢ #B >ˢ ! 88ˢ !;?<ˢ #B ;ˢ?; A = 'ˢ ; AB9ˢ # ?C = ! ˢ = ˢ @?< <C= ?=ˢ E #Bˢ)? 4 = ˢ ?ˢ D L @ < ˢ ˢ =ˢ =4 = ˢ EB?88>ˢ ! 8 ˢ =ˢ 88ˢ #B ˢ ! @C8# ˢ = ˢK ;# ˢ?!ˢ ?C8ˢ = ˢD? >

. ˢ % & ˢ D =Aˢ #B ˢ ;??# ?!ˢ 'ˢ < =" = 4 #B ˢ AC 8#ˢ?!ˢ #B ˢ =ˢ E ˢ <KC# 4 = ˢ#B ˢ < ˢ #Bˢ =ˢ =ˢ = ˢ@?;;CK# ˢ = #C; ˢ @?= > ˢ #?ˢ 88ˢ #B ;ˢ K? # ; #>ˢ !@ = =Aˢ !;?<ˢ #B <ˢ D>ˢ?; = ;>ˢ A = L ; # ?=

<ˢ $ ˢ #B ˢ ?; A = 'ˢ @?;;CK# ?=4 EB ; D>ˢ E ˢ ; ˢC## ;8>ˢ = K? 4 D8 4 = ˢ< ˢ?KK?! # ˢ #?ˢ 'ˢA?? 4 = ˢ EB? 'ˢ>ˢ =@8 = ˢ#?ˢ 'ˢ 84 ?ˢK;?L @ ˢ 88ˢ @#C 88ˢ #; = A; ! ?=

ˢ % *(ˢ @?;;CK# ?=ˢ ?!ˢ = #C; ˢ C; =Aˢ #B ˢ 8 ! 4 ?#Bˢ ; < =ˢ =ˢ #B?! ˢ #B #ˢ ;ˢ ; A = ; # 7 = ˢ 8#B?CABˢ #ˢD ˢ#B;?CABˢ B; #ˢK ; ?= ˢ = ˢ<?;# L ! 4 > #ˢ D?#Bˢ #ˢ 8!ˢ = ˢ 'ˢ#B ˢ <?# ?= ˢ#B ; ?!ˢ ; ˢ#;C8>ˢ = ˢK;?K ;8>ˢ =

ˢ & & ˢ =ˢ D?#Bˢ ?; A = 8ˢ = ˢ @#C '4 D =Aˢ ˢ#; =!A; ! ?=ˢ ?!ˢ #B ˢ ; AB# ?C ˢ 8 Eˢ ?!ˢ)? 4 = ˢ @?=#; ;>ˢ #B ; C=#?4 ?#Bˢ =ˢ # ˢ ?E=ˢ = #C; ˢ D; =Aˢ AC 8#ˢ CK?=ˢ #B ˢ == ;4 EB ; D>ˢ B ˢ ˢ D?C= ˢ ? ;ˢ #?ˢ #B ˢ E; #Bˢ ?!ˢ)? ˢ = ˢ @C; ˢ ?!ˢ #B ˢ 8 E4 = ˢ ?ˢ < ˢ !CD @#ˢ#?ˢ #B4 E #Bˢ 'ˢ < ; 4 K ; #C 'ˢ # <K?; 'ˢ = ˢ # ;= '

ˢ ˢ $ ˢ , ˢ ˢ 4 ˢ

ˢ % &ˢ # =@ ˢ D #E =ˢ) ? ˢ = ˢ #B ˢ @; #C; ˢ ˢ ?ˢ A; #4 #B #ˢ 8#B?CABˢ ; ?= D8 ˢ @; #C; ˢ ?ˢ ?E ˢ ?D =@ ˢ C=#?ˢ B <ˢ ˢ#B ;ˢ ; #?;4 > #ˢ #B >ˢ @?C8 ˢ= ;ˢ B ˢ =>ˢ!;C # ?=ˢ ?!ˢ B <ˢ ˢ#B ;ˢ D8 ! 9ˢ = ! ˢ = ˢ ; E ; 4 DC#ˢ D>ˢ ?< ˢ ?8C=# ;>ˢ @?= 9ˢ !@ = ?=ˢ ?=ˢ) ? ˢK ;#4 EB @Bˢ B ˢ B #Bˢ D =ˢ K8 ˢ #?ˢ FK; ! ˢ D>ˢ E >ˢ ?!ˢ ? = =#

S ˢ % &ˢ ! ; # ? = =# < ˢ E #Bˢ < =ˢ E ˢ ˢ ?L = =# ?!ˢ 2 ?;" 4 EB ; =ˢ 8 ! ˢ E ˢ K;?< ! ˢ #?

<' 275'%7'1% .'3"'1%,'':",3-+%30'8:"7' 4"75%3%"7' "6' :-+6-43'275':-+, 72!!'"/-5%-74-

.' ' D>' B '!8' B =A' < ' B < 8!' C=9' @ K D8' !'8!' D>' #B #' ? = =#4 #B ' 0?; ' E ' K8 ! ' #?' < " ' ' @?=' @?<<?=8>' @ 88 ' #B ' ? = =#?!'); @ 4 EB ; =' B '!; 8>' ?!! ; 'C=#?' == ; 4 8!' = ' 8 #?=' D>' J C ' B; #4; NC ;L =A' ?!' #B <'! #B' =' B <'#B #' #B >' < >' D ' 4 = ' K;?< =A' #?' A ' C=#?' '' #B? ' #B #' ; ' ?; = ' C=#?' 8!' B ' B?8>' (K ; #4 #?' < " '#B <' E 88 =A' = ' D8'#?' D 8

U'% *(' ? = =#?!'); @ ' '!; NC =#8>' #!?;#B' =' #B ' (@; K#C; ' D>'#B ' = < ' ?!' '% # < =#4 =' ; ! ; =@ '#?'#B ' #B'?!'J C ' B; 8'#B '% # #?;4 = ' #?' #B ' ;8 !# =A' =B ; # =@ 4 E #B' 88'#B =A ' D 8?=A =A'#?' #'#B ; =' D NC #B

' % *(' ? = =#E ' !! =#8>' < = #; ' =' #B ' # < ' ?!'#B ' 0 E' = ' =' #B ' # < ' ?!' #B ')? K 885 C= ;' #B ' 0 E' #' E ' < = #; ' D>' K;?< ! 4 K;?KB 4 @; ! @ 4 ! ; ##<@ ?=4 #B ' K !@B '8 <D4 = '?#B ;'#>K ' = ' ; = =@ ' L 8 ; '#?'#B ' K ?K8 '?!'#B 'J E 4 88 !?; A= !>9' =A' B; #'#?' ?< 4 EB @B'E ; '!?;'#B #'# < ' C!8 9' @ =#= ' !! @ @ ?C 4 #B;?CAB'#B ' ?K ; # ?=' ?!' #B ' (K ; #4 #?' = #;C@#' = ' DC 8 ' CK' #B ' 8 @#' =' ! #B' =' #B ' K;?< ! '4 ! B4 D>' EB?<' #B >' B ' !C88' ; < ! ?=' ?!' = ' = ' # ;= 88' 8 # ?=4 = ' '@ 88 ' #B ' 8 '% # < =#

' ' +& '#B ')? K 884 EB =' B; #; ' CD7' # =@ ' E ' FB D # 4 #B ' ?; = =@ ' =' EB @B' B ' ? = =#' K =! 4 ; '#B ' K; A' ?!' #B ' 2?; ' = ' #B ' < = !#; # ?=' ?!' #B ' @; < # 4 ?!' K# <' = '#B '0?; '(CKK?P5' EB @B'#B?CAB' ! E ;' =' =C<D ;4 = ' < = !#; ' E #B' <?; ' <K8 @ #>' = '8 !# ?C#E ; ' A8? >4 > #' =' #B <' #' 'B 8 '!?;#B' =' <?; '!C88= 8 4 =@ 4 = ' K ; L #C 86' ! @ @>4 #?' 88' = # ?= 4 D?#B' J E 'Q) =# 8 4 = ' ' @ 88 '#B ' E' % # < =#4 %B ; ' ; '=?# #B ; !?; '#E?' ? = =#'?!'); @ ' !! ; =A' =' CDL # =@ 4 DC# ?= ' = '#B ' < ' C= ;' ; ?C ' L K = # ?=

' ' ' ' ' "

4 *%'K8 ')? 4 ='B ' # < 88'KC;K? 4 #?' @B??! ' = '?; ='#B '0?; 'J C 4 B '?=8>' D A?## =' (?=4i' #?' D '#B ' < #?;' D #E =')? ' = ' < =4 #B 'K;?L KB #4 K; !# = ' " =A4 #B 'B ' = ' ?C;'?!' B ' BC;@B4 #B ' B ;' ?!' 88' #B =A 4 = ' C A ' ?!' #B ' E?;8 4 C=#?' EB?<' B ' ' !;?<' '' # ;= #>' A ' 'K ?K8 '#?' D ' B ' 4 = '#?' D 'D>' B <' =' # < ' ; < 4 @ 88 4 C # ! 4 =@# ! ' = 'A8?; !

S' % &' (?=' ?!')? 4 #B ' @?= ' K ; ?=' ?!' #B ' %; = #>4 D =A' ;>' = ' # ;= 88')? 4 ?!' ?= ' CDL # =@ 4 = ' NC 88' 9E #B' #B ' $ #B ;4 4 EB =' #B

!C88= ! ' ?!' # < ' E ' @?< 4 # " ' CK?=' B <' < = ' = #C; 4 E #B' 88' #B ' ! =# '' K;?K ;# ' = ' @?<L <?=' =! ;< # '#B ; ?!4 > #' E #B?C# =4 D =A' @?=L @ ' D>' #B ' K?E ;' ?!' #B ' ?8>')B? # =' #B ' E? 8D' ?!' #B ' ;A =' ;>4 ?!' B ;' CD # =@ ' (?' #B #'#E?' EB?8 4 K ;! @#' = ' # =@# = #C; 4 #B ')? B ' = '#B ' =B?? 4 E ; ' = K ; D8>' ?>=9' ' #?A #B ;' =' ?= ' / ; ?=4 E #B?C# @?= ; ?=4 @?<K? # ?=' ?;' @?=!C ?=5 2 B @B' K ; ?=' ' ;>')? ' = ' ;>' =4 > #' ?= ' 3B; #4 #B ' ?=8>' < L #?;' D #E =')? ' = ' =

(' % &' 0?; 'J ' 4 =' B ' BC< =' = #C; ' #BC ' C= # '#?' #B ' = 4 E ' =@# ! ' = ' =? =# ' E #B'#B 'B?8>' (K ; #' D? ' < C; 4 B =A' =' B <' 88' #B '#; C; ' ?!' E ?<' = '"=?E8 A 5' =' EB?<' #'K8 '#B '$ #B ;4 #B #' 88' !C = !' B?C8 ' E 885 #?' #B ' = ' #B #' ! ,$/' '%' B ;<8 !' = ' C= ! 8 4 = '!C88'?!'A; @ ' = '#;C#B4 B ' < AB#' D ' #B?;?CAB8>'!C;= B '#?' F @C# '#B ' ?!! @ '?!' ' L #?;' = ' (C; #>4 EB @B' ?!8(@ ' B '#??"' =?#' C=#?' B < 8!4 DC#' E '#B ; C=#?' @ 88 ' D>' B ' $ #B ;4 EB?' KC#' 88' K?E ;' = ' C A < =#' =#?' B 'B = 4 = 'A 'B <'@?<< = < =#'#?' F @C# '#B ' <

U'% *(' ?!! @ '#B '0?; 'J C ' '<? #E 88 =A8>' C= ;# " 4 EB @B' #B #'B ' < AB#' @B ;A 4 B 'E ' < 'C= ;' #B '0 E4 = ' ' K ;! @#8>'!C8! 88' #4 = C; '<? #'A; ?C '#?;< =#' << # 8>' ='B '

?C84 = '<? #' K =!C88' C!! ; =A ' =' D 'D? >4 E ' @;C@ ! ' = ' 4 2 'DC; ' = '; < = 'C= ;' #B ' K?E ;' ?!' #B4 > #' E' =?' @?;;CK# ?=5 ?=' #B '#B ; ' >' B ';? '!;?<'#B ' 'E #B'#B ' < ' D? >' =' EB @B' B ' C!! ; 4 E #B' EB @B' 8!?' B ' ! = ' =#?' B =4 = '#B ; ' ## #B' #'#B '; AB#' B = '?!' B '$ #B ;4 < " =A' =# ;@ ! ?=4 = ' B 88' ; #C;=' #?' C A '< =' = ' =A 8' #' ' = '?!' #B ' E?;8

' % &' 0?; 'J C 'D>'B 'K ;! @#?D =@ ' = ' ! @; ! @ '?!' B <! 8!4 EB @B'B 4 #B;?CAB'!B ' # != ' (K ; #4 ?=@ '?!! ; 'CK' C=#?')? 4 B #B' !C88>' # L ! ' #B ' C # @ '?!' B ' $ #B ;4 = 'KC;@B ' =?# ?=8>'; @?=@ 8 # ?=4 DC#' =' ;8 !# =A' =B ; # =@ ' =' #B ' " =A ?<'?!' B =4 !?;' 8' #B? 'EB?<' #B ' $ #B ;' B #B' A =' C=#?' B <4

' 0% ') ' #B ' E?;"' ?!' ; <K# ?=' 2 ' =?#' @#C 88>' E;?CAB#' D>' B; #'# 88' !# ;' B ' =@ ;L = # ?=4 > #'#B ' ;#C 4 !! @ @>' = ' D = ! #' #B ; L ?!' E ; ' @?<<C= @ # ' C=#?' #B ' 8 @#' =' 88' A ' !C@@ ! 8>4 !;?<' #B ' D A == =A' ?!' #B ' E?;8 4 =' = 'D>'#B? 'K;?< 4#>K ' = ' @; ! @ 4 EB ; =' B 'E ' ; 8 ' = ' A= ! '#?' D '#B ' '?!' #B ' 2?< =4 EB @B' B?C8 'D;C ! '#B ' ;K =# 'B 5 = ' #B ' 0 <D' 8 =' !;?<'#B 'D A == =A' ?!' #B ' E?;8 4 D =A'> # ; >' = '#?' >'#B ' < 4 = '!?;' ;

V' *(%4 =' #B 'E?;"' ?!' < # ?=4 @# #B' @L @?; =A' #?' D?#B' = #C; 4 D>' @B' = #C; ' ? =A' 'B

EJ8@ ' ' K;?K ;' #?' #' 8!Ł > #' D>' ; ?=' ?!' #B ' C= #>' ?!' #B ' K ; ?=4 #B #' EB @B' ' K;?K ;' #?' ?= ' = #C; 4 ' ?< # < ' =' (@; K#C; ' ##; DC# '#?' #B ' K ; ?=' =?< = # 'D>'#B '?#B ;'= #C;

' % ' '#BX '!?;'EB?<' B; #' B #B' KC;@B ' ; <K# ?=4 B ' ?#B'@ ;# =8>' = ' !! @#C 88>' KK8>' = ' @?<<C= @ #' #B ' < 4 < " =A' =# ;@ ! ?=' !?;'#B <4 B= ' ; 88 =A' C=#?' #B <' =' = 'D>'#B ' E?; 4 #B ' <> # ; ' ?!' 8 # ?=4 !! @#C 88>' K ;L C =A'#B <'D>'B ' K ; #'#?'D 8 ' = '?D >4 = ' A? ;= =A'#B ;' B ;#'D>'B 'E?; ' = ' K ; #4 ? ;L @?< =A' -?;' #B ;' = < ' D>' B ' D= AB#>'K?E ;' = 'E ?< ' =' @B' < == ;' = '2 > ' ' ; '<? #' @?= ?= =#'#?'B 'E?= ;!C88' = 'C= ;@B D8 ' L K = # ?=

' ' $ ' ' 4

' M7 ' B #B' = C ' #B ' E 88' ?!' < =' E #B' #B #' = #C; 88' 8 D ;#>4 #B #' ' = #B ;' !?;@ 4 =?;' D>' =>'† 8!!?8C# '= @ ! #>'?!'= #C; ' # ;< = 4 #?' ?' A?? ' ?;' 88

S' ' =' B ' # # '?!' ==?@ =@>4 B '!; ?<' = ' K?E ;'#?' E '' = '#?' ?'#B #' EB @B' E 'A?? ' = ' E 88' K8 ! =A'#?') ? 5 DC#' > #' <C# D8>4 !?'#B #' B ' < AB#' ! &'!;?<' #

.' 'B>'B ' ! 88' =#?' ' # # '?!' ='B #B' EB?88>' 8?!#' 88' B B#>'?!'E&8'#?' =>' K ; #C 88' A?? ' @@?<L K => =A' 8 # ?=5 ?' ' ' = #C; 88' < =4 D =A' 8L #?A #B ;' ;! '!;?<'#B #' A?? 4 = ' ' ='=4 ' =?#' D8 'D>'B '?E=' #; =A#B'#?'@?= ;#' B <! 8!4?;' #?'K; K ; 'B < 8!'#B ; C=#?

UŁ 2 & ')? '@?= ;#' ' == ;4 = '#; =!8 # ' B <' =#?'#B ' # # '?!'A; @ 4 B '!; #B' B <'!;?<' B '= #C; 88' D?= A 'C= ;' =4 = 'D>'B 'A; @ ' 8?= ' = D8 'B <'!; 8>'#?' E 88' = '#?' ?' #B #' EB @B' ' K ; #C 88>'A?? 5 > #' ?' '#B #4 D>' ; L ?='?!'B ' ; < = =A'@?;;CK# ?=4 B ' ?#B'=?#K ;L ! @#8>4 =?;' ?=8>4 E ''#B #' EB @B' ' A?? 4 DC#' ?#B' 8!?E !8#B #' EB @B' ' &

5' % &'E ''?!'< =' ' < 'K ;! @#8>' = ' <<CL # D8>'!; '#?' ?' A?? ' 8?= 4 ='#B ' # # '?!')8?;>' ?=8>

' ' $ '% '

' 00'#B? 'EB?<')? 'B #B'K; # = # 'C=#?' 8 ! 4 = '#B? '?=8>4 B ' 'K8 '='B ' KK? =# ' = ' @@ K# '# < ' !! @#C 88>'#?' @ 884 D>'B 'E?; ' = '(K ; #4 ?C#'?!'#B #' # # '?!' =' = ' #B' =' EB @B'#B >' ; 'D>'= #C; 4 #?' A; @ ' = ' 8 # ?=' D>' J C ' B; #4 =8 AB# = =A' #B ;' < = 4 K ; L #C 88>' = ' =A8>'#?' C= ; # = '#B '#B =A '?!')? 5 # " =A' E >'#B ;' B ;#'?!' #?= 4 = 'A L =A' C=#?'#B <' =' B ;#'?!'!8 B5 ; = E =A'#B ;' E 88 4 = 'D>'B ' 8< A8#>' K?E ;' # ;< = A #B <'#?'#B #'EB @B' 'A?? 4 = '@!! @#C &>' ; EL =A' #B <'#?' J C ' B; !#4 > #' ?' '#B >'@?< ' <? #'!; 8>4 D =A'< 'E 88 =A'D>'B 'A; @

S' % *(' !! @#C 88'@ 88' '?!')? '!; ' = ' K @ '' A; @ ' 8?= 4 =?#'!;?<' =>'#B =A' #' 88' !?; =' =' < =4 EB?' ' 8#?A #B ;'K ! '#B ; =4 C=# !8'D =A' NC @" = ' = ' ; = E 'D>'#B 'B?8>' (K ; #4 B ' ' #B ; D>' = D8 '#?' = E ;'#B ' @ '4 = '#?' <L D; @ '#B 'A; @ '?!! ; ' = '@?= > ' =' #4

&0& %' =! =# 4 > =A' =' =! =@>4 ; '; A = L ; # ' = ' 'D>'3 ; !#4 #B;?CAB'#B '(K ; #4 EB?' E?;" #B' EB =' = 'EB ; ' = 'B?E'B 'K8 #BŁ ?' 8 ?' ; ' 88' ?#B ;' 8 @#' K ; ?= 4 EB?' ; 'C=@ K D8 '?!'D =A' ?C#E ; 8>' 88 'D>'#B ' < = #;>'?!'#B ' E?;

U' % & (4 =?#' 8 @#' 4 8#B?CAB'#B >'< >'D ' @ 88 'D>'#B ' < = #;>'?!'#B 'E?; 4 = ' < >'B ' ! < ' @?<<?='?K ; # ?= ' ?!'#B ' (K ; #4 > #' #B >' = ;'#;C8>'@?< 'C=#?' B; !#4 = '#B ; !?; '@ ==?#' D ' 5 <C@B' 8?!' @ =' < =' =?# KF?! ! =A'#B ' B; # =' 8 A ?='D ' ' =' =>'?#B ;'E >'EB #L ? ;4 D '#B >' = ;' ? 8 A =# #?' !; < '#B ;' 8 ' @@?; =A'#?'#B '&AB#?!' = #C; 4 = '#B '8 E' ?!'#B #' ; 8 A ?='#B >' ?'K;?! ! 5 = '#?' ! ;# = ' < =# ='#B #' #B >' < >4 ' ;>' K ;= @ ?C ' = ' #?'D ' # #

' ' $ '7

' % (&' EB?<')? ' !! @#C 88>'@ 88 #B4 B ' 8!?' !; 8>' C # ! #B4 =?# D>' =!C =A' ; AB# ?C!= ! ' =#?' #B <4 DC#' D>'K ; ?= =A'#B ;' = 4 = 'D>' @@?C=#L =A' = ' @@ K# =A'#B ;'K ; ?= ' '; AB# ?C 5 =?#' !?;' =>'#B =A'E;?CAB#' ='#B <' ?;' ?= 'D>'#B <4 DC#'!?;' B; !#' " ' 8?= 5 =?;'D>' <KC# =A' ! #B' #' 8!4 #B ' @#' ?!' D 8 =A4 ?;' =>'?#B ;' =A 9 8 88' ?D =@ '#?'#B <' '#B ;' ; AB# ?C!= ! 5 DC#' D>' <KC# =A' #B ' ?D =@ ' = ' # ! @# ?=' ?!' B; !#' C=#?'#B <4 #B >' ; @ @ =A' = ' ; # =A' ?=' B <' = 'B ' ; AB# ?C!= !' D>'! #B5 EB @B' ! #B' #B >'B '=?#'?!'#B < 8 5 #' '#B 'A !#'?!')?

S' $ '*% 4' #BC ' ; =A' = ' ; # =A' ?=' B; #' = ' B ' ; AB# ?C!= ! 4 ' #B ' 8?= ' = #;C< =#' ?!' C # ! @ # ?=5 > #' #' ' =?#' 8?= ' =' #B ' K ; ?=' C # ! 4 DC#' ' ;' @@?<K = ' E #B' 88' ?#B ;' > =A' A; @ 44 = ' ' =?' ' ! #B4 DC#' E?;" #B' D>'8?

8' *(%' D>'B ' ?D =@ ' = ' #B' '!C '>' ! B ;A '#B ' D#'?!' 88'#B? '#8 #' ; '#BC ' C # L ! 4 = ' ' < " ' 'K;?K ;';@ 88' = '!C88' # ! @L # ?='#?'B ' $ #B ; ' C # @ ' =' #B ;'B@8 8!Ł > #4 =' ' <C@B' 'B 'E 'A ='D>'#B ' $ #B ;' !?;'#8 <4 = 'B ' ?D =@ ' = ' # ! @# ?=' @@@-`# ' =' #B ;' # 4 = 'D?#B' !; 8>4 =?# !?;' =>'#B =A' =' #B <4 #8 ? ;' C # ! @ # ?=' ' ?=8>'?!' 'A; @ 4 #B #' D?#B

#B ' F @# C # @ ' = ' ; @B' A; @ ' ?!') ? ' < AB# D ' A8?; ! ' ='#B ' C # ! @ # ?='?!' == ;

U') +' ' !;?<' 88' # ;= #>' @ @; ' #?' C # !>' 88'#B ' 8 @#4 = ' B; #' ' ='#B ' !C+= ! '?!'# < ' '!?;'#B ;' = 4 = ' ; ! ' A ='!?;'#B ;' C # ! L @ # ?=Z = ;#B 8 ! 4 #B >' ; ' =?# C # ! ' C=# 88' #B ' B?8>' K ; #' ?#B' =' C ' # < ' @#C 88>' KK8>' B; #' '=#?'#B <

') +' ?#B'@?=# =C '#?'!?;A '#B ' ='?!'#B? 9' #B #' ; ' C # ! 4 = ' 8#B?CAB'#B >'@ ='= ;'! 88' !;?<'#B ' # # ' ?!' C # ! @ # ?=4 > #' #B >' < >' D>' #B ;' = '! 88'C= ;') ? ' ! #B ;8>' K8 C; 4 = ' =?#'B '#B '8 AB#?!'B '@?C=# = =@ ' ; #?; 'C=#?' #B <4 C=# 88'#B >'BC<D8 ' #B < 8 4 @?=! ! '#B ;' = 4 D A' K ; ?=4 = ' ; = E' #B ;' ! #B' = ' ; L K =# =@

;') * ' C # ! @ # ?=' ?!' D 8 ; ' C= ;' #B ' 8 ' % # < =#4 E ' =' 88' #B ' ; K @#' ?= ' = ' #B ' < 'E #B'#B ' C # ! @ # ?=' ?!' D 8 ; ' C= ;' #B ' E' % # < =#

' ^ %% ' :' #

' 0 0' #B? '#B #' ; ' C # ! 4) ? ' ?C@B! ! #B4 =' = '!?;'B ' ?=8>' ?=' J C ' B; #4#?'< " 'K ;L # " ; '?!'#B 'A; @ '?!' ?K# ?=4 D>' EB @B'#B >' ; ' # " =' =#?'#B '=C<D ;4 = ' = ?>'#B '8 D ;# ' = ' K; 8 A ' 6 #B ' @B 8 ; ='?!') ? 4 B 'B '= < ' KC#' CK?=' #B <4 ; @ ' #B ' K ; #' ?!' ?K# ?=4 B ' @@ !' #?'#B ' #B;?= ' ?!'A; @ 'E #B'D?8 = ! 4 ; ' = D8 '#?'@;>4 DD 4 $ #B ;4 ; 'K # 4 K;?L # @# 4 K;? '!?;4 = '@B # = 'D>'B <' 'D>' '! #B ;4 > #' = ;' @ #' ?!!4 DC#' 8 '#?'#B ' >' ?!' ; <K# ?=4 = ' =B ; #'#B 'K;?< ! ' 'B ; '?!' ;8 !# =A' 8 # ?=

' ^ . ' $ '3

' % & ' EB?' ; ' !! @#C 88>'@ 88 ' = ' ; A = L ; # 4 B =A' '= E'B ;#' = ' '= E' K ; #'@; # ' ='#B <4 ; '!C;#B ;' =@# ! 4 ; 88>' = 'K ; ?=L 88>4 #B;?CAB'#B ' ;#C '?!' B; !#' #B' = ' ; L C;; @# ?=4 D>' B ' E?; ' = ' K ; #' E 88 =A' ='#B <5 #B ' ?< = ?='?!'#B ' EB?8 'D? >'?!' ='#;?> 4 = '#B ' ; 86' 8C # '#B ;?!' ; ' <?; ' = '<?; 'E " = ' = '<?;# ! 4 = '#B >'<?; ' = '<?; 'NC @" = ' = ' #; =A#B = ' ='88' =A' A; @ 4 #?'#B 'K; @# ! ?!'#;C 'B?8 = ! 4 E #B?C#' EB @B'=?' < =' B 88' '#B 'O?;

' % *(' =@# ! @ # ?=' '#B;?CAB?C#4 ='#B 'EB?8 ' < =4 > #' <K ;! @#' ='#B '8 ! 5 #B ; ' B #B' # 88' ?< '; <= =#'?!'@?;;CK# ?=' =' ;>'K ;#4 EB =@ ' ; #B' ' @?=# =C 86' = ' ;; @?=@ 8 D8 ' E ;4 #B ' !8 B'8C # =A' A = #'#B ' K ; #4 = '#B ' K ; #' A =!# #B '!8 B

8' * ' EB @B' E ;4 8#B?CAB' #B ' ; < = =A' @?;;CKL # ?=' !?;' ' # < ' < >' <C@B' K; 84 > #' #B;?CAB' #B ' @?=# =C 86' CKK8>'?!' #; =A#B'!;?<'#B ' =@# L !> =A' K ; #' ?!' B; !#4 #B ' ; A = ; #' K ;# ?#B' ? ;@?< 4 = ' ?' #B ' =#' A;?E' =' A; @ 4 K ;L ! @# =A' B?8 = !' ='#B '! ;'?!') ?

' ' $ ' ')

' % &' A; @ '?!' ! #B4 EB ; D>' #B ' 8 @# ; ' = D8 '#?'D 8 '#?' #B ' =A' ?!'#B ;' ?C8 4 ' #B ' E?;"' ?!'#! ' K ; #' ?!' B; !#' =' #B ;' B ;# 4 = ' ' ?; = ; 8>' E;?CAB#' D>' #B ' < = #;>' ?!'#B ' E?; 4 D>' EB @B' 8 ?4 = ' D>' #B ' < = #; # ?='¶ ?!'#B ' @; < =#' = 'K; > ;4 #' ' =@; ! ' = ' #; =A#B =

' '#B ' ! #B' ' B; # =' B 8 #B'#?'B '#;C ' EB # ? ;' ' ; 8 '='#B 'E?; 4 !;?<'#B ' C#B?L ; #>'"6)?'B < 8!' K " =A'#B ; =4 = ' @# #D' !! ; =#8>'CK?='#B #' EB @B' @B'K ;# @C8 ;'K ! A ' #B ; ?!'@?=# = #B5 > 8 =A'?D =@ '#?'#B '@?<9' < = '#; D8 =A' #'#B '#B; #= =A 4 = ' <D; @ 9' =A'#B 'K;?< ! '?!') ? '!?;'#B '8 ! ' = '#B #' E =@B' '#?' ?< ' C#'#B 'K; =@ K 86' @#'"6 =A'! #B4 ; ' @@ K# =A4 ; @ =A4 = 'K #<A' CK?=' B; !#' 8?= '!?;' C # ! @ # ?=4 =@# ! @ # ?=' = ' # ;= 88' 8 ! 4 D>' ;#C '?!'#B ' ? =#?!') ; @

(' % *(' ! #B' ' !! ; #' =' A; 4 E "' ?;' #;?=A5' < >' D '?!# =' = '< =>' E > ' ! !8 ' = ' E " = 4 DC#' A # ' #B ' @#?;>4 A;?E =A' CK' =' < =>'#?'#B ' ## =< =#?!' '!C88' 8 C; =@ '#B;?CAB' B; #4 EB?' ' D?#B' #B ' C#B?;' = ' ! = B ;' ?!' ?=;' ! #B

' 89' $ ' - & ' '+

' &/& % &' C=#?'8 !' ' =' =A 8 @ 88' A; 4 #B ' ?@#; = 'EB ; ?!' '#?' D 'K; @B 'D>' ;>' < = !# ;'?!'#B ')? K 88

' ' #' ' == ;4 ?C#' ?!' #B ' AB#' = ' = '=?#' ?=8>'?!' #B ' =A ;4 BC#' !?' ?!' #B ' ! 8#B = !' = ' ? ?C = !' ?!' B ' = 4 ' @?=#; ;>4 #?' #B ' B?8>' = #C; ' = ' ; AB# ?C '8 E' ?!') ? 4 = ' CK?='#B ' KK; B = ?='?!' B ' < ;@>' =' B; #' #?' C@B' ' ; 'K = # =#4 ?' A; '!?;4 = 'B # 'B ' = 4 ' #?' #C;=' !;?<' #B <' 88' C=#?') ? 4 KC;K? =A' = ' = ?C; =A' 'E 8"' E #B' B <' =' 88' #B 'E > ' ?!'B '@?<< = < =#

. ' 0% ') ' ; K =# =@ ' D ' =?# #?' D '; # ' =' ' =>' # ! @# ?=' !?;' =4 ?;' =>' @ C ' ?!' #B 'K ; ?='#B ; ?!4 EB @B' '#B ' @#' ?!') ? '!; ' A; @ ' =' B; !#4 > #' ' #' ?!' C@B' = @ !# #>' #?' 88' == ; 4 #B #' =?= ' < >' FK @# K ; ?=' E #B?C#' #

U' ('#B ; ' '=?' =' ?' < 88' DC#' #' ; ' <L = # ?=5' ?'#B ; ' '=?' =' ?' A; #'#B #' #'@ =' D; =A' <= # ?=' CK?='#B? 'EB?'#;C 8>'; K =#

SU % / O* & % ' , , '*=B

5' & r' ?CA8 # =?# #?' @?=# =# #B < 8 ' E #B' 88 ?1' #B < 8 4 DC# EB?88> i;?<' #B ' K ; # ?i' B;' #' = ' #B # #B >' < >'D ' = D8 ' #B ; C=L #?4 D ' #B ' A; @ ' #B >' B 8; >'; @ 4 #B ' ; ; NC ; ' =' @#C 88 =i8C =@ '?1' #B ' < ' B?8>' (K ; #4 #?' E?;'" =' #B <' #?' E 88 = '#?' ?'?1' B ' B 88 i = ' < ;@>5' ?' B ' #B # @ = 8 W #B' B ' B ' A??' ' K8 C; 5 > # ; ' #B >'=?# B ; CK?=' #?' A;?E= A8 A =#4 ' i' #B >'E ; '=?# D?C= '#?' K ;L i?;<' =>' C#>4 C=8 i ' CK?=' ' K @ 86 <?# ?=' ?1' #B ' K ; #5 DC# #B >'?CAB#'#?'D ' 8 A =#' =' # ;; =A' CK' #B 'A; @ '?1') ? '#B #' ='#B < U' % & ' EB?' =' #B ;' ?D =@ ' ## =' #?' #B ' A; # i#'B AB#' EB @B' 'K?1 D8 ' =' #B '8 i 4 ; ' ? i ;' i;?<' D =A' D8 ' #?' CK ; ;?A # ' = ' #?' ? <?; '#B =') ? ' ; NC ; 4 ' #B # #B >'i 88 B?;'# ?1' <C@B' EB @B' =' C#>'#B >' ; '?D=C= '#?' ?

') +' E?;'" ' ; '?=8>' C@B ') ? 'B #B' @?<L < = ' ='B ' 2 ?; 4 ='=?# C@B ' E #B?C#'#B ' 2ǁ ;; =# #B ; ?1' ; ' >i 'D>' < =' ?C#'?1' D8 = ' ; ?1;<' ' ; NC ; ' =?' ?1' A??' ' =# =# ?= W 84 ?;'CK?='K; # =@ '?1'A??' ' =# #?' ; L = '@ ==?'# K8 i ') ? 4?;< " ' ,< =' # #?' ; L @ ' A; @ ' i;?<') ? 5' = ' > ' # #B ;' = A8 @'# ?1' #B <' ' <?; ' =iC88' = ' K8 i =A'C=#?') ?

) : ' $ ' $ ' +) *' :*' . *1 4 # *' ' & # *' 4 " (o %*

' 0% ') ' B>K?@; # ' = ' ?#B ;' C<9 A 9' =@; # ' < =4 < >' =8>' @ ' #B < 8 ' E #B

S' % *(' K ; ; =@ ' ?1' #B ' =#' K = ' =?# CK?=' #B ;' ?E=' i; ' E 884 DC#' CK?=' #B ' < <C# L D 8 #>' ?1' #B ' @; ' ?1' 8 @# ?=4 i8?E =A' i;?<' #B ' i; ' = ' C=@B =A D8 ' 8? ' ?1') ? ' #B ' $ #B ;'4 CK?=' #B ' ii @ @>' ?1' #B ' < ; '# = ' =# ;@ i =' ?1' J C ' B; i884 #B ' D =A' ?1' #B ' (K ; #4 Q ?1' #B ' i ' ?1') ? ' E #B =' #B <4 = ' #B ' = #C; ' ?1' #B ' ? = =#' ?1') ; @ 5 i;?<' 88 EB @B' ; i #B' BD' #B ' @ ;# =#>' = ' =i 8DD 8 #>' #B ; ?i

. ' & & % &O& ((' #B >' < >4 #B;?CAB' #B ' # <K# # ?= ' ?1' (# =4 = ' ?1'#B ' E?;8 4 #B 'K; 9' 8 =@>' ?1' @?;;CK# ?=' ; < =A' =' #B <4 = ' #B ' = A8 @#' ?1' #B ' < = ' ?1' #B ';' K; ; # ?=4 i 88 =#?' A; ?C ' =4 = ' i?;' ' #< ' @?=# =C ' #B ; L =4 EB ; D>' #B >' =@C;')? ' K8 C; 4 = ' A; ' B ' B?8>' (K ; #4 @?< ' #?' D ' K; ?1' ' ?< ' < C; ' ?1' #B ;' A; @ ' = ' @?<i?;# 4 B ' #B ;'B ;'# ' B ; = ' = '#B ;'; @?= @ =@ 'E?C= L 4 BC;'#' = ' @ = 8 W '?#B ; 4 = 'D; =A'# <K?; 86 C A< =# 'CK?=' #B < 8

(o %*) : ' $ ' $ +) *' . . 8 / 4 # *' ' & # *' 4 "

S' % *0' 4 D 8 #>' #?' ?' A??' E?;'" ' =?# # 88 ?1' #B < 8 4 DC# EB?88> i;?<' #B ' K ; # ?i' B; ' #' = ' #B # #B >' < >'D ' = D8 ' #B ; C=L #?4 D ' #B ' A; @ ' #B >' B 8; >' ; @ 4 #B ' ; ; NC ; ' =' @#C 88 =i8C =@ '?1' #B ' < ' B?8>' (K ; #4 #?' E?;'" =' #B <' #?' E 88 = '#?' ?'?1' B ' B 88 i = ' < ;@>5' ?' B ' #B # @ = 8 W #B' B ' A??' ' K8 C; 5 > # ; ' #B >'=?# B ; CK?=' #?' A;?E= A8 A =#4 ' i' #B >'E ; '=?# D?C= '#?' K ;L i?;<' =>' C#>4 C=8 i ' CK?=' ' K @ 86 <?# ?=' ?1' #B ' K ; #5 DC# #B >'?CAB#'#?'D ' 8 A =#' =' # ;; =A' CK' #B 'A; @ '?1') ? '#B #' ='#B < U' % & ' EB?' =' #B ;' ?D =@ ' ## =' #?' #B ' A; # i#'B AB#' EB @B' 'K?1 D8 ' =' #B '8 i 4 ; ' ? i ;' i;?<' D =A' D8 ' #?' CK ; ;?A # ' = ' #?' ? <?; '#B =') ? ' ; NC ; 4 ' #B # #B >'i 88 B?;'# ?1' <C@B' EB @B' =' C#>'#B >' ; '?D=C= '#?' ?

') +' E?;'" ' ; '?=8>' C@B ') ? 'B #B' @?<L < = ' ='B ' 2 ?; 4 ='=?# C@B ' E #B?C#'#B ' 2ǁ ;; =# #B ; ?1' ; ' >i 'D>' < =' ?C#'?1' D8 = ' ; ?1;<' ' ; NC ; ' =?' ?1' A??' ' =# =# ?= W 84 ?;'CK?='K; # =@ '?1'A??' ' =# #?' ; L = '@ ==?'# K8 i ') ? 4?;< " ' ,< =' # #?' ; L @ ' A; @ ' i;?<') ? 5' = ' > ' # #B ;' = A8 @'# ?1' #B <' ' <?; ' =iC88' = ' K8 i =A'C=#?') ?

) : ' $ ' $ +) *' :*' . *1 4 # *' ' & # *' 4 " (o %*

' 0% ') ' B>K?@; # ' = ' ?#B ;' C<9 A 9' =@; # ' < =4 < >' =8>' @ ' #B < 8 ' E #B

S' % *(' K ; ; =@ ' ?1' #B ' =#' K = ' =?# CK?=' #B ;' ?E=' i; ' E 884 DC#' CK?=' #B ' < <C# L D 8 #>' ?1' #B ' @; ' ?1' 8 @# ?=4 i8?E =A' i;?<' #B ' i; ' = ' C=@B =A D8 ' 8? ' ?1') ? ' #B ' $ #B ;'4 CK?=' #B ' ii @ @>' ?1' #B ' < ; '# = ' =# ;@ i =' ?1' J C ' B; i884 #B ' D =A' ?1' #B ' (K ; #4 Q ?1' #B ' i ' ?1') ? ' E #B =' #B <4 = ' #B ' = #C; ' ?1' #B ' ? = =#' ?1') ; @ 5 i;?<' 88 EB @B' ; i #B' BD' #B ' @ ;# =#>' = ' =i 8DD 8 #>' #B ; ?i

. ' & & % &O& ((' #B >' < >4 #B;?CAB' #B ' # <K# # ?= ' ?1' (# =4 = ' ?1'#B ' E?;8 4 #B 'K; 9' 8 =@>' ?1' @?;;CK# ?=' ; < =A' =' #B <4 = ' #B ' = A8 @#' ?1' #B ' < = ' ?1' #B ';' K; ; # ?=4 i 88 =#?' A; ?C ' =4 = ' i?;' ' #< ' @?=# =C ' #B ; L =4 EB ; D>' #B >' =@C;')? ' K8 C; 4 = ' A; ' B ' B?8>' (K ; #4 @?< ' #?' D ' K; ?1' ' ?< ' < C; ' ?1' #B ;' A; @ ' = ' @?<i?;# 4 B ' #B ;'B ;'# ' B ; = ' = '#B ;'; @?= @ =@ 'E?C= L 4 BC;'#' = ' @ = 8 W '?#B ; 4 = 'D; =A'# <K?; 86 C A< =# 'CK?=' #B < 8

V' 2 1 (' ?= 'D>'C=; A = ; # ' < =4 8#B?CAB' i?;' #B ' < ## ;'?1' #B <'#B >'< >'D ','#B =A ' EB @B') ? ' @?<< = 4 = ' ?1' A?? ' C ' D?#B' #?' #B <L 8 ' = ' ?#B ; 4 > # D @ C1 ' #B >' K;?@ ' =?# i;?<' 'B ;'# KC; i ' D>' i #B4 =?;' ;' ?= ' =' ' ; AB#' < ==' ;' @@?; =A'#?'#B ' 2 ?; 4 =?;'#?' ';' AB#' = 4 #B ' A8?;>' ?1') ? 4 #B >' ; ' #B ; i?;' =iC884 = '@ ==?# K8 i ') ? 4?;< " ' ,< =' # #?' ; L @ ' A; @ ' i;?<') ? 5' = ' > ' # #B ;' = A8 @# ?1' #B <' ' <?; ' =iC88' = ' K8 i =A'C=#?') ?

) : ' $ ' $ +) *' :*' . *1 4 # *' ' & # *' 4 "

' 0% ') ' B>K?@; # ' = ' ?#B ;' C<9 A 9' =@; # ' < =4 < >' =8>' @ ' #B < 8 ' E #B

KCD8 !8 BA ?; < <=# = =A #B <4 ; ! #;C@# #?
#B F# < 88 K @ = ?; ; EB @B B; !# B #B
!8 D8 8B = #B BC;@B4 #B > < > D 8 E!C88>
@ 88 #?; @@?C=#4 = K;?@ A = # D> #B
@ = C; ?!#B BC;@B4 = D> #B K?E ; ?! #B
@ 8 A #; #

$ * 4

3

% &8 AB# ?! = #C; B E #B #B # #B ;)
? 4 EB?; B #B 8?; B K = ? ; A= #>? ; 884
A?? 4 = ?#B A?? C=#?; 884 = #B ; !?; #?;
D ! ; 4 8? 4 K; ! 4 @ 88 CK?=4 #;C # =4
7 = ; E #B 88 #B B ;#4 = E #B '#B ?C84
= E #B 88 #B < AB# C# #B @@ K# D8 E >?!
E?; B KK =A #B #;C) ? =!# #C# D> B <9
! 8!4 = ? 8 < # D> B ?E=; 8 E '4 #B #
B < >=?# D E?; B KK @@?; =A #?; #B < L
A = # ?= = @ ?!< =4 ?;#B CAA # ?= ?!
(# =4 C= ; => D8 ; K; =# # ?=4 ?; =>?#B ;
E >=?# K; @; D =#B B?8> (@; K#C;

S &0*) * ' (E?; B K #?; D A =#?;) ?
#B $ #B ;4 (?= = ?8>) B? #4 = #?; B <8?= 4
=?# #?; =A 88 4 =# 4 ?; =>?#B ;@; #C; 5 = 4
=@ #B ! 884 =?# E #B?C# < #?;4 =?; =#B
< # ?= ?!< =>?#B ;DC# ?! B; 88 8?=

. / & E #B #B =" A =A4 D =A ?= K 9
@ 88 K ;# ?! ; 8 A ?C E?; B K4 D>) ? ; NC ;
?! 88 < =5 = #B # # < > D @@ K# 4 # #?
D < =#B = < ?! #B (?= D> #B B 8K ?! B
K ; #4 @@?; =A #?; B E 884 E #B; C= ; # = =A4
; ; =@ 4 BC< 8 #>4 ! ; =@>4 ! #B4 8? = K ;9
! ; =@ 4 = 4 ! ?@ '4 = "=?E= #?=AC

U / & #?; D < !?; #B =A 8 E!C884 =
!?; 88 ?;# ?! < = 8 =A4 ?; #B # B 88 8 B ; L
!# ;5 DC# =?# !?; #B 4 =?; !?; #B?! ?! EB?<
# < > D "=?E= #B # #B > B ! == #B ! =
C=#?; #B

% &; =A ?! #B (@; K#C; E #B; A? 8>! ;4
#B !?C= K; @B =A = @?= @ ?= D8 B ; =A ?!
#B E?; 4 =?D =@ C=#?;) ? 4 E #B; C= ; # = L
=A4 ! #B; = ; ; =@ 4 =A =A ?! K 8< E #B;
A; @ =#B B ;#4 8!? #B C < = #; # ?=
= E?;#B>; @ =A ?! #B (@; < =# = # #C#L
D> B; #4 ; 88 K ;# ?! #B ?; = ;>; 8 A ?C
E?; B K ?!) ? 4 D ; 8 A ?C ? #B 4 ?E 4 ?L
8 <=! # =A = #B =" A =A CK?= K @ 88 ?@@ 9
! ?= 4 EB @B ; 4 =#B ;! ; 88 # < 4 = !?= 4
#?; D C = = B?8> = ; 8 A ?C < == ;

& *% & K; > ;4 =?; =>?#B ; K ;# ?! ; L
8 A ?C E?; B K4 =?E C= ;#B) ? K 884 #B ;
#> C=#?4 ?; < < ?; @@ K# D8 D>4 =>K8 @
= EB @B # K ;!?; < 4 ?; #?E ; EB @B #
; @# 5 DC#) ? #?; D E?; B KK ;>EB ;
= K ; # = #;C#B4 = K; # ! < 8 4 8>4 =

%7' ,-2+-3' -25%"7-' /0'1%.6-!6' _"' ."+-',"!-.7!0' %7'31-' :7/!%4S'2!,-./!%-,'91%41'2+-'7"3'42+-!-6,!0' "+'96!68 0'3"'/-'7-#!-43-5'"+'6"+,2S-7'91-7' "5' /0'1%,'9"+5'"+':+"Q%5-74-'42!!-31'31-+-873"

V' (' #' ?!'#B'8 E'?!'=#C; 4#B #'=A=;88' C'K;?K?;#?='?!'#<'D' #' K ;#!?;'#B'E?;L B K'?!')?4 7'='B'E?;4D>'K? #4<?;88' ='K ;K #C88'@?<<=<=#4D= =A'88'<='=' C''A 4B'B #B'K ;#@C8 ;8>' KK?=#'?='>'=' ='!?;''(DD #B'#?'D'"K# B?8>'C=#?'B <5' EB @B4!;?<'#B'D A==A'?!'#B'E?;8'#?'#B';L C;;@#?='?!' B;!#4E'#B'8!#>'?!'#B'E "5' =4!;?<'#B';C;;@#?='?!' B;!#4E'@B=A' =#?'#B'!#;!#>'?!'#B'E "4EB @B'='(@;K#C;' '@8'#B'O?;'>4='#?'D'@?=#=C'!?' #B'='?!'#B'E?;8''#B' B;#='(DD #B'0

('2//231'%,'31-7'S-:3'1"!0'873"'31-' "+5' 91-7'.-7'263-+'2'58-':+-:2+%7#"6'31-%+'1-2+3,' 275'"+5-+%7#"6'31-%+'4".."7'266 ,'/-6"+-'1275' 5"'7"3'"7!0'"/6-+Q-'2'1"!0'+-,3'2!!'31-'520'6+"."315+'"97'9"+S,'9"+5,' 5'31"8#13,@2/"83'31-%+' 9"+!5!0'-.:!"0.-73,'275'+-4+-23%"7,'/83'2!6"'2+-' 32S-7'8:'31-'91"!-'3%.-'%7'31-':8/!%4S'275':+%Q23-' -^-+4%6-,'"6'1%,'9"+,1%:'275'%7'31-'583%-,'"6'7-4-6@ ,%30''.-+40

'88' $' 4 '$ ':'9 4

'8 E!C88'?#B' 'K ;#?!'; A?C'E?; B K4 EB ; =4 CK?=' C #?@@ ?=4#B'K ; ?=' E ; =A' !?8 <=8>'@ 88 #B')?'#?'E #= 'EB #B' !# ;# B' ?;K;?<!#B4 ='#?' C A'B <' @@?; =A'#?'#B' #;C#B'?;'!8 B??'?!'EB #B' E ; #B'

S'% &'=<'?!')?'?=8>''#B #D>'EB @B'<=' ?CAB#'#?' E ;4 ='#B ='#'#?'B'C 'E #B' 88'B?8>'! ;' ='; ; =@5 #B ; !?;'#?'* ;' =8>'?;'; !B8>4D>'#B #A8?; ?C'='# !C3' =<4?;'#?'!E ;' #88'D>'=>'?#B ;'#B =A4 '=9' !C88'='#?'D'DB?;; ' #'='=<##;'?!'E AB#' ='<?<=#4 =?#B' E ;; =# 'D>'#B'E?;'?!')?'C= ;'#B' E'% #<=#4'2 88'C= ;' #B' 8 5 ?'8 E!C88'?#B4D =A'<K?! 'D>'8 E9' !C88' C#B?; #>4 =' C@B'<##;'?CAB#'#?'B'# " =

.'2 (& &'# " #B' ='? #B'?CAB#' C 8>' #?'@?=! ;'#B'E AB#=8'?!'?'?8<=' =' @#4 ='#B ; C=#?' ?C@B'=?#B =A'DC#'EB #B' 'C88>' K ; C ' '#B'#;C#B5'= #B ;'<>'=>'<='D='B< 8!'D>'?#B'#?' =>'#B =A'DC#'EB #' A??'='C #4='EB #B'JD8 #B' ?'#?'D 4 ='EB #B' 'D8'='; !?8 '#?'K ;!?;<5>#' #' ' ='#?'; !C ' =' ?#B4#?C@B =A' =>'#B =A' #B #' 'A??'='C #4'D =A' <K? 'D>'8 E!C88' C#B?; #>

U' '?#B' '#?'D'#" =' ='#B'K8 =' ='@?<L <?='!=!'?!'#B'E?; 4E #B?C# NC ?@#?=?;

'^^%%+' ' ' ' "

''' '31-',8:+-.-' "+5'275' %7#"6'2!!'31-' P9"+!5'1231'"+52%7-5' %Q%!' 2#%,3+23,'3"'/-'875-+ B<4?;'#B'K ?K8 4!?;'B'?E='A8?;>' ='#B' KCD8@"'/ +5 ='#?'#B' ='B #B' ;< '#B <' E #B'#B'K?E ;'?!'#B' E?; 4!?;'#B'+ $' =' =@?C; A< =#?!'#B <'#B #';'A?? 4 ='!?;'#B' KC= B< =#?!' 8?;

S'*%' '8 E!C88'!?;' B; !# ;'#?' @@ K# ='F @C#' #B'?!!@'?!' '< A #'EB ='@ 88 '#B ;C=#?5 %7'31-'.272#%7#'91-+"6'2,'31-0'"8#13'-,:-4%2!!0' 3"'.2%732%7':%-30'$8,3%4-'275':-24-'244"+5%7#'3"' 31-'91" /.-'!29,'"6'-241' ".."79-2!31',"' 6"+'3123'-75'31-0'.20'!2968!!0'7"9'875-+'31-' -9' -,32.-73'92#-'92+'8:"7'$8,3'275'7-4-63' ,2+0'"4426%"+%' G

.'% &'@ 8' A #;#'<>';?# !#C<'#?'B <L !8!'#B' <=#;#?='?!'#B'E?;' ='@; L <=#4?;'#B'K?E ;'?!'#B 4" >'?!'#B'=A ?<' ?!'B =5>#'B'B #B' C#B?; #>4 ='#' 'B' C#>'#?'# " '?; ;4#B#'C= #>' ='K @'D'K; L !;' ='5!! ' BC;@B4#B #'#B'#;C#B'?!')?'D' " K# KC; ' ='=#;4#B #' 88'D8 KB <' ='B ; 'B' CKK;8 4 88'@?;;CK#?='='DC! ' ='E?; B K' ='!@K8='K; =# '?;';!?;< 44' ='88'#B'?; =@ '?!')?'C8>' ##8 4 ' <=#; 4 ='?D! ; 5!?;'#B'D ## ;' !!@#;A

91- -"6' 1-' 1231' :"9-+' 3"' ' %#763"5,'3"'1-' :+-W ,-73' 23' 31-. ' 275' 3"' :+"Q%5-' 3123' 9123,"-Q-+' %,' 3+276-43-5' %7' 31-. ' /-' 244"+5%7#' 3"' 31-' .%75' "6' "5

U' *%' '#B ' C#>'?!'K ?K8 '#?' K<>'!?;' A #; # 4 #?'B?=?C;' #B ;' K ; ?= 4 #?' K >'#B <' #; DC# ' = ' ?#B ;' C 4 #?'?D >'#B ;' 8 E!C 8' @?<< = 4 = ' #?' B ' CD @# #?' #B ;' C#B?; #>4 ! C @?= = ' " ' *=! 8 #>'?;' !! ; =@ ' =' ; 8 A ?=' ?#B'=?# < " ' ? '#B ' < A #; # ' C # = '8 A 88' C#B?9' 8 >7=?;'!; '#B ' K ?K8 '!;?<'#B ;' C '?D ?@ ' #?' B <5' !;?<' EB @B' @@8 ! !# @ 88' K ; ?= ' ; '=?# F <K# 5 <C@B'8 !' B #B'#B ' /?K ' =>'K?E ;'?;' C; @# ?=' ? ;'#B <' ='#B ;' ?< = ?= 4 ?;'? ;' '?#B ;'K ?K8 4 = '*<!# ?!' 88'#?' K; '#B #='?!'#B ;' ?< = ?= '?;'8 4 !' B ' B 88' C A '#B <' #?' D ' B ; # @" 4 ?;' CK?=' =>'?#B ;'K; # =@ 'EB #L ? ;

' ' $ ' " ' !' 5

' 1 *) &' ' D #E =' ?= ' < =' = ' ?= ' E?< =5 = #B ;' ' #'8 E!C 8' !?;' =>' < ='#?' B ' <?; ' #B =' ?= ' E ! 4 =?;' !?;' =>' E?< ='#?' B ' <?; '#B =' ?= 'BC D = 4 #'#B ' < '# <

>' ' 92,' "+52%7-5' 6"+' 31-' .8382!K' 1-!:' "6'18,/275'275'9%6-'6"+'31-'%74+-2,-' "6' .27W S%75' 9%31' 2' !-#%3%.23-' %6,8-' 275' "6'31-' 18+41' 9%31' 27' 1"!0' ,--5' 275' ' :+-Q-73%7#' "6' 8.' 4!-277-!,

' *%' ' 8 E!C 8' !?;' 88' ?;#' ?!' K ?K8 '#?' < ;;>' EB?' ; ' D8 ' E #B' C A < =#'#?' A ' #B ;' @?=9' ! =#5 > #' #' '#B ' C#>'?!' B; # = '#?' < ;;>'?=8>' =' #B ' 0?; 4 = ' #B ; !?; ' C@B' ' K;?! 8 ' #B ' #;C ' ; !?;< ' ; 8 A ?=4 B?C8 ' =?#' < ;;>' E #B' =! 8 4 K K #' ?;' ?#B ;' ?8 # ; 4 = #B ;' B?C8 ' C@B' ' ; ' A? 8>'D ' C= NC 88>'>?" 4 D>' < ;;>L =A' E #B' C@B' ' ; ' =?#?; ?C!8>'E @" ' ='#B ;' 8 ! 4?;' < =# =' <= D8 'B ;

U' *) &' ?CAB#' =?#' #?' D 'E #B ='#B ' L A; '?!' @?= =AC = #>'?;' !! = #>'!?;D ='='#B ' 2?; 4 =?;' @ =' C@B' =@ ! C?C ' < ;; A ' ;' D ' < '8 E!C 8' D>' =>'8 E' ?!' < =4?;' @?= =#?!' K ;# 4 !?' '#B 'K ;!?='< >'8 '#?A #B ;' ' < =' = ' E ! ' %B ' < =' < >' =?#' < ;;>' =>'?!' B 'E ! ' " = ; ' = ; ;' ='D8?? '#B ='B ' < >'?!' B '?E=4 =?;'#B 'E?< =' ?!'#B ' BC D = ' " = ; ' = ; ;' ='D8?? '#B ='?!'B ;'?E=

' + ' 0%& '?;'!?;= @ # ?='@?<< ## ' !# ;' '@?=#; @#4 D =A' # @# 'D !?; ' < ;; A 4 A #B' C! 5 ?@@ ?=' #?' #B ' ==?@ =#' K ;#>' #?' ! ?8 ' #B #' @?=#; @#' *=' #B ' @ ' ?!' C8# ;>' !# ;' < ; ; A 4 #' '8 E!C 8' !?;' #B ' ==?@ =#' K ;#>' #?' C ' ?C#' ' ?;@ 4 = ' !# ;' #B ' ?;@ '#?' < ;;>' =9' ?#B ;4 ' !'#B 'B?!! =!! =A'K ;#>' E ; '

3' 0% ') '#B '@?;;CK# ?='?!' < ='D ' C@B4 ' ' K#' #?' #C >' ;AC< =# 4 C= C8>' #?' KC#' !C= ;'#B? 'EB?<')? 'B #B' ? < '#?A #B ;' =' < ;; A 4 > #' =?#B =A' DC#' C8# ;>4 ?;' C@B' E 89' !C88' ;# ?=' ' @ ='=?E > 'D ' ; < ' D>'#B ' BC;@B'?;'@ 8' < A #; # 4 '@ C! ' C!! @ =#?!' #' ?8 =A' #B ' D?= ' ?!' < ;; A 4 EB ; =' 'KCD8 @"' = '?; ;8>'@?C;! '?!'K;?@ =A' '#?'D '?D! ; 4 = '#B ' K ; ?= ' @?=@ ;= ' =' #4 =?#8 !#'#?'#B >' ?E='E 88 ' = ' @; # ?='='#B ;'?E='@ ' b

' ' $ ' '

' % &' #B?8 @"' ?;' C= ; 88' BC;@B4 EB @B' ' = ! D8 4 @?= # '?!'#B 'EB?8 '=C<D ;'?!'#B ' 8 @#4 #B #' B 'D =4 ; 4 ?;' B 88'D 'A #B ; ' =#?'?= 4 C= ;' B; !#5 #B ' B ' #B ;?!5 = ' '#B ' K?C ' #B 'D? >4 #B '!C ' = 8 '?!'B <'#B #'! ' #B' 88' =' 88

S' % &' D8 ' BC;@B4 EB @B' ' 8 ?'@ #B?8 @"' ?;' C= ;! 884 C= ;'#B ')? K 88' X=?#' @?=! = '#?'?= ' = # ?=' ' D !?; ' C= ;' #B ' 0 E`' @?= # ' ?!' "' #B? '#B;?CAB?C#' #B ' E?;8 '#B #' K;?! ! '#B ' #;C ' ; BA ?=4 #?A #B ;' E #B' #B ;' @B 8 ; =5 = ' '#B ' " =A ?<' ?!'#B ' 0?; 'J C ' B; !#4 #B 'B?C ' = ' ! < 8>'?!')? 4 ?C#?!'EB @B' #B ; ' '=?'?; = ;>' K?8 D 8 #>'?!' 8 # ?=

8' A 7' #B ' #B?8 @"' D8 ' @BC;@B4 B; #' B #B' A ='#B ' < = #;>4?; @8 4 = '?; = =@ '?!')? 4 !?;'#B 'A #B ; =A' = 'K ;! @# =A'?!'#B ' =# ' ='#B '8 ! 4 #?'#B ' = '?!'#B 'E?;8 5 = ' ?#B'D>' B '?E='K; ! =@ ' = ' (K ; #' @@?; =A' #?' B ' K;?9' < ! 4 < " '#B <' !! @#C 88'#B ; <#?

U' % *(' #B?8 @"' BC;@B' B #B' D =' ?< L # < ' <?; 4 ?< # < '8 !' D8 4 = 'K ;# @C8 ;' BC;@B 'EB @B' ; '< <D ; '#B ; ?!' ; ' <?; '?;' 8 ! 'KC; 4 @@?; =A' '#B ' ?@#; = '?!'#B ')? K 88' '# CAB#' = ' <D; @ 4 ?; = =@ ' < ;C!#; 4 = 'KCD8 @"' E?; B K'K ;!?;< 4 <?; '?;'8 ! 'KC; L 8>' ='#B <

' % &'KC; #' BC;@B 'C= ;' B =' ; ' CDL @#' D?#B' #?' < F#C; ' = ' ;;?;4 = ' ?< 'B ' ?' A = ; # ' '#?' D @?< '=?' BC;@B ' ?!' B; #4 DC#' >= A?AC '?!'(# =Z = ;#B 8 ! 4#B ; ' B 88' D ' 8E > ' ' BC;@B'?=' ;#B4 #?'E?; B K')? ' @L @?; =A'#?'B 'E 88

' % & &' '=?' ?#B ;' B ' ?!'#B ' BC;@B' DC# #B 'O?; 'J C ' B; !#4 =?;'@ ='#B ' /?K '?!' ?< ' =' =>' =! 'D 'B '#B ; ?!4 DC#' '#B #' =# @B; !#4 #B #' < ='?!' =4 = ' ?='?!'K ; # ?=4#B #' F 8# #B' B < 8!' ='#B ' BC;@B' A = #' B; !#4 = ' '#B #' '@ 88 ')?

' ' $ ' ' ' '3

' O O' =#'#B #' ; 'C= # '#?'J C ' B; #'#B ;' B ' D>' B ' K ; #' = ' D>' ! #B4 B ' ! 88?E B K

ⁿ % &ʻ @: < =# ʻ ?!ʻ #B ʻ 8 ʻ% # < =#ⁿ =ʻ : L
A ; ʻ?!ʻ #B ʻ K ; #C 88ⁿ #B =Aʻ ʻ #B ; D>ʻ A=! ʻ =ʻ
FB D # ⁿ E ; ʻ!?;ʻ CD # =@ ʻ #B ʻ < ʻ E #Bʻ #B? ʻ
?!ʻ#B ʻ E

ʻ ^^Q%%% ʻ $ ʻ -

(* %(ʻ D>K;?! ! ?=ʻ ; D?C= ʻ #?ʻ < =# ʻ
=ʻ B?8>ʻ ! 88?E B Kʻ = ʻ @?<<C= ?=ʻ =Pʻ#B ʻ E?;L
B Kʻ?!ʻ) ? ⁿ = ʻ =ʻ K ;!?;< =Aʻ C@Bʻ ?#B ;ʻ K ; L
#C 86ʻ ; @ ʻ ʻ # = ʻ#?ʻ #B ;ʻ<C#C 88ʻ ! @ # ?=5
ʻ 8 ?ʻ =ʻ; 8 =Aʻ @Bʻ ?#B ;ʻ =ʻ?C#E ; ʻ#B =A ⁿ
@@?; =Aʻ#?ʻ#B ;ʻ ; 86ʻ D 8 # ʻ = ʻ = @ ! # 5ʻ
EB @Bʻ @?<<C= ?=ʻ ⁿ) ? ʻ?!! ; #Bʻ ?KK?;#C= #>ⁿ ʻ
#?ʻ D ʻ F# = ʻ#?ʻ ʻʻ#B? ʻ EB?ʻ =ʻ ;ʻ>ʻK8 @ ʻ @ 88
CK?=ʻ#B ʻ = < ʻ ?!ʻ#B ʻ O?; ʻ J C 4

8ʻ % *(ʻ ?<<C= ?=ʻ EB @Bʻ #B ʻ =# ʻ B ʻ E #Bʻ
B; !#⁴ ?#Bʻ =?# < " ʻ #B <ʻ =ʻ =>ʻ E ! ʻ K ;#ʻ " ; ʻ
?!ʻ #B ʻ CD # =@ ʻ ?!ʻ B ʻ) ? B ⁿ ?;ʻ#?ʻ D ʻ NC ʻʻ
E #Bʻ B; !#ʻ =ʻ =>ʻ . K @#5ʻ #B ;ʻ ?!ʻ EB @Bʻ #?ʻ
!! ;<ʻ ʻ <K ?C ʻ = ʻD8 KB <?C ⁷ ?;ʻ ?#Bʻ#B ;ʻ
@?<<C= ?=ʻ ?>ʻ) B?!#⁴ D>ʻ ʻ < = # ;ʻ?!ʻ #B ʻ) ? L
K 88ʻ8 E!C88>ʻ@ 88 ʻ#B ; C=#?4

8ʻ +*/ / * ʻ ?!ʻ #B ʻ K ; ?=ʻ =ʻ #B ʻ E # ;ʻ ʻ =?#
= @ ! :>5 DC# D K# <ʻ ʻ ; AB#8>ʻ < = #;ʻ D>ʻ
K?C; =Aʻ?;ʻ K; ="8 =Aʻ E # ;ʻCK?=ʻ#B ʻK ; ?=

Uʻ %ʻ ?=8>ʻ#B? ʻ#B # ? @#C 88>ʻ K;?! ! ʻ ! #Bʻ
=⁴ = ʻ ?D =@ʻ C=#?ʻ B; !#⁴ DC# 8 ⁷ #B ʻ =! =#ʻ
?!ʻ?= ʻ ?;ʻ D?#Bʻ D 8 =Aʻ K ; =# ʻ ; @ʻ ?!ʻ) ? ʻ =ʻ B; !#
A = ; # 4

ʻ (& %(ʻ ; B?8>ʻ A= ʻ = ʻ 8 ʻ ?!ʻ
#Bʻ ? = =#ʻ ?!ʻ) ; @ ⁴ < < #8>ʻ = # #C# ʻ D>ʻ
) ? ⁴ #?ʻ ; K; =# B; # = ʻ B ʻ D = ! # ⁴ = ʻ #?ʻ
@?=!;ʻ ?C,ʻ =# ; !#ʻ =ʻ B <5 ʻ 8 ⁷ #?ʻ KC#ʻ ʻ L
D8 ʻ !! ; =@ʻ D #E =ʻ #B? ʻ #B #ʻ D 8?=Aʻ C=#?ʻ
#B ʻ @BC;@Bʻ = ʻ #B ʻ ; # ?!ʻ #B ʻ E?;8 ⁴ = ʻ ?8 <=8>ʻ
#?ʻ =A A ʻ #B <ʻ #?ʻ #B ʻ ; @ʻ ?!ʻ) ? ʻ =ʻ B; !#
@@?; =Aʻ#?ʻ B ʻ E?;

S ʻ % & &ʻ ʻ =ʻ .>ʻ @; < =#ʻ ʻ K ; #C 86ʻ ; 8 L
?=ʻ ?;ʻ @; < =# 88 C= ?=ʻ D #E =ʻ #B ʻ A=ʻ = ʻ
#B ʻ #B =Aʻ A= ! 5ʻ EB =@ ʻ #ʻ @?< ʻ #?ʻ K ! ⁴ #B #ʻ
#B ʻ = < ʻ Q !! @# ʻ ?!ʻ #B ʻ ?= ʻ ; ##; DC# ʻ #?ʻ
#B ʻ?#B ;

8ʻ % & &ʻ A; @ ʻ EB @Bʻ ʻ FB D # ʻ =ʻ ?;ʻ D>ʻ #B ʻ
@; < =# ʻ ; AB#0>ʻ C ⁴ ʻ =?# @?=! ;: ʻ D>ʻ =>ʻ
K?E ;ʻ =ʻ #B <5 = #B ;ʻ ?#Bʻ #B ʻ !! @ @>ʻ ?!ʻ ʻ
@; < =# K = ʻ CK?=ʻ #B ʻ K #>ʻ ?;ʻ =# =# ?=ʻ ?!ʻ
B <ʻ #B # ?#Bʻ < = !# ;ʻ #⁴ DC# CK?=ʻ #B ʻ E?;'"ʻ
?!ʻ #B ʻ (K ; #⁴ = ʻ #B ʻ E?; ʻ ?!ʻ *=!# #C# ?=⁴ EB @Bʻ
@?=# = ⁴ #?A #B ;ʻ E #Bʻ ʻ K; @ K# C#B?;ʻ W =Aʻ #B ʻ
C ʻ #B ; ?!⁴ ʻ K;?< ʻ ?!ʻ D = ! # #?ʻ E?;#B>ʻ ; L
@ ; 4

U ʻ % & &ʻ D ʻ ?=8>ʻ#E?ʻ @; < =# ʻ ?; = ʻ D>ʻ
B; !#⁴ ?C;ʻ O?;ʻ =ʻ #B ʻ) ? K 8⁴⁴ #B # ʻ #?ʻ >ʻ
K# <ʻ Q #B ʻ (CKK ;ʻ ?!ʻ #B ʻ O?; 5ʻ = #B ;ʻ ?!ʻ
EB @Bʻ < >ʻ D ʻ K = ʻ D>ʻ =>ʻ DC# D>ʻ ʻ < = # ;ʻ
?!ʻ #B ʻ E?; ʻ8 E!C88>ʻ?;

\` 8 ; 4 #B ;' K ; #C 88 =?C; B< =# = ' A;?E#B' =' B <4 #B ;' !C;#B ;' =A A < =# =' = ' #?' 88 C# 'EB @B' #B >' ?E 'C=#?'B <4 = '#?' D ' 'D?= ' = 'K8 A '?!'#B ;'@?<<C= ?='E #B'B <4 = 'E #B' @B'?#B ;' ' < <D ; '?!'B ' <> !8# @ 8D? >

3' * '#B ' @; < =# B; # '=?# ?!! ; 'CK' #?' B '! #B ;4 =?;' =>' ; B' @; ! @ ' < ' # 88' !?;' ; < ! ?='?!' = '?!' #B 'NC @"' ?;' 4 DC# ?=8>' '@?<< <?; # ?='?!' #B # ?= '?!! ; =A'CK'?!'B <L 8!'D>'B < 8!'CK?='#B ' ;?! 4 ?=@ '!?;' 884 = ' ' K ; #C 88' ?D8 # ?=' ?!' 88' K?! D8 ' K; ' C=#?')? '!?;'#B ' < 5' ?' #B #'#B 'K?K B' @; ! @ '?!' #B ' Q' X '#B >'@ 88' #`' '<? # D?< = D8>' = CL ; ?C '#?' B; # '?= '?=8>' @; ! @ 4 #B ' 8?= 'K;?K L # # ?='!?;' 88'#B ' = '?!'#B ' 8 @#4

8' % &' 0?; ' J C ' B #B' =' #B ' ?; = =@ ' KL K? =# ' B ' < = # ; '#?' @8 ; ' B ' E?; '?!' *=L # #C# ?='#?' #B ' K ?K8 4'#?' K; >' = ' D8 !' #B ' 8 < =# '?!' D; ' = ' E = 4 = '#B ; D>'#?' # #B <' K ;# !;?<' '@?<<?='#?' ='B?8>' C 4 = '#?' # " ' = 'D; "' #B 'D; 4 #?'# " '#B ' @CK4 = ' X#B >'@?<<C= @ # =A' 8 ?'#B < 8 `#?' A 'D?#B' #?'#B '@?<<C= @ =# 4DC# #?'=?= 'EB?' ; '=?#B =' K; =# ='#B '@?=A; A # ?=4

U' / * %&' < ! 4 ?;'; @ =A'#B ' @; < =# D>' ' K; !# ?;' =>' ?#B ;' 8?= 4 ' 8 " E ! '#B ' = 88 ?!'#B ' @CK' #?'#B 'K ?K8 4'E?; B KK =A'#B ' 8 < =# 4 #B '8 !# =A' #B <' CK' ?;' @ => =A' #B <' D?C# !?;' ?; # ?=4 = '#B ' ; ! ; =A' #B <' !?;' =>'K; # = '; 8 A ?C 'C! 4 ; ' 88'@?=#; ;>'#?'#B ' = #C; ' ?!'#B ' @; < =#4 = '#?'#B ' =!# #C# ?='?!')B; !#

' % &' ?C#E ; ' 8 < =#' ='#B ' @; < =#4 C 9' 8>' #' K ;# #?'#B 'C ' ?; = '4D>' B; #4 B ' C@B' ; 8 # ?='#?' B <' @;C@ ! 4 ' #B #' #;C8>4 > #' @; < =# 88>' ?=8>4 #B >' ; ' ?< # < ' @ 88 ' D>' #B ' = < ' ?!' #B ' #B =A ' #B >' ; K; =#4 #?' E #4 #B ' D? >' = ' D8?? ' ?!' B; #4 8D #' =' CD # =@ ' = ' = #C; ' #B >' # 88' ; < ='#;C8>' = '?=8>'D; ' = 'E = ' 'B #B >'E ; 'D !?;

' % %' ?@#; = 'EB @B' < =# = ' ' @B =A '?!' #B ' CD # =@ '?!' D; ' = 'E = ' =#?' #B ' CD # =@ '?!' B; !#' D? >' = 'D8?? 4 X@?<<?=8>'@ 88 '#; =9' CD # =# # ?=`4 D>'@?= @; # ?='?!' ' K; #4 ?;'D>' =>'?#B ;'E >4 '; KCA= =#=?# #?' @; K#C; ' 8?= 4 DC# ='#?' @?<<?=' = ' = ' ; ?=4 ? ;9' #B;?E #B' #B ' = #C; ' ?!'#B ' @; < =#4 = ' B #B' D =4 = ' 4 #B ' @ C! '?!' < = !?8 ' CK ; # # ?= 4 > '?!'A;?! ' ?8 #;

V' 2 % '; @ ; 4 ?C#E ; 8>' K ;# " =A' ?!' #B ' D8 ' 8 < =#' ?!' #B ' @; < =#4 ?' #B =' 8!?' =E ; 8>4 D>'! #B4 ; 88>' = ' = 4 > #' =?# @ ;= 88>' = '@?;K?; 88>4 DC#' K ; #C 88>'; @ ' = ' ! 'CK?=' B; #' @;C@ ! 4 = ' 88' D = ! #'?!' *

#B4 #B 'D? >' = 'D8?? '?!' B; !85 D =A'#B ='=?# @?; `?; 88>' ?;'@ ;= 88>4 =4 E #B4 ?;'C= ;'#B ' D; ' = 'E = 4 > #4 '; 88>4 DC#' K ; #C 88>4 K; =#'#?' #B '! #8 ?!'D 8 ; ' ='#B #' ?; = =@ 4 '#B ' 8 L < =#'#B < 8 ' ; '#?'#B ;'?C#E ; ' =

' 0% ') ' A=?; =#' = 'E @" ' < ='; L @ '#B '?C#E ; ' 8 < =#' ='#B ' @; < =#4 > #' #B >'; @ '=?# #B '#B =A' A= ! '#B ; D>'5 DC#' D>' #B ;'C=E?;#B>' @?< =A'#B ; C=#?4 ; 'AC 8#>' ?!'#B 'D? >' = 'D8?? '?!'#B '0?; '#?' #B ;'?E=' <= # ?=5 EB ; !?; ' 88' A=?; =#' = 'C=A? 8>' K ; ?= 4 ' #B >' ; ' C=! #' #?' = ?>' @?<<C= ?='E #B' B <4 ?' ; ' #B >' C=E?;#B>' ?!' #B ' 0?; ' # D8 4 = '@ ==?#4 E #B?C#A; #' =' A =!#' B; !#' EB 8 ' #B >' ; < =' C@B4 K ;# " ' ?!' #B ! ' B?8>' <> # ; 4 ?;'D ' < ## '#B ; C=#?

' ' $ ' '

' % &' 0?; ' J C 4 ' 1 =A' = ' B ' ?!' B ' BC;@B4 B #B' #B ; =' KK? =# ' 'A? ;=< =#4 =' #B 'B = '?!' @BC;@B' ?!! @ ; 4 # =@#' !;?<' #B '@ 8 A #; #

J' % '#B ' ?!! @ ;'#B ' " >'?!'#B ' " =A ?<'?!' B =' ; ' @?<< ## 4 D>' ;#C ' EB ; ?!' #B >' B 'K?E ;' ; K @# 8>'#?'; # =' = ' ; < #' = 4 #?' BC#' #B #' " =A ?<' A =!#' #B ' <K = # =#4 D?#B' D>' #B ' E?; ' = ' @ = C; 4 = '#?' ?K =' #' C=#?' K = # =#' == ; 4 D>'#B ' < = #;>'?!'#B 'A? 9' K 884 = 'D>' D!?8C# ?=' !;?<' @ = C; 4 ' ?@@ ?=' B 88' ; NC ;

.' ' ' @ = C; ' ; ' = @ ! >' !?;'#B ' ; L @8 < =A' Q' A = =A'?!' ?!! = =A'D; #B; =4 !?;' L # ;; =A' ?!' ?#B ; ' !;?<' #B ' 8 " ' ?!! =@ 4 !?;' #B ' KC;A =A' ?C#' ?!' #B #' 8 ='EB @B' < AB#' =! @#' #B ' EB?8 ' 8C<K4 !?;' = @ # =A' #B ' B?=?C;' ?!' B; #4 = '#B 'B?8>'K;?! ! ?='?!'#B 'A? K 884 = '!?;' K; =# =A' #B ' E; #B' ?!')? 4 EB @B' < AB#' C #8>'! 88' CK?='#B ' BC;@B4 !'#B >' B?C8 ' C!! ;' B '@? = =#' = '#B ' 88 '#B ; ?!'#?' D 'K;?! = ' D>'=?#?; ?C ' = '?D # = # '?!! = ;

U' $ '#B 'D ## ;' ## = =A'?!'#B ' = 4 #B ' ?!! @ ; '?!'#B '@BC;@B' ; '#?' K;?@ 'D>' <?= L # ?=4 C K = ?='!;?<'#B ' @; < =#?!'#B '0?; ' CKK ;'!?;' ' ?=4 = 'D>' F@?<<C= @ # ?='!;?<' #B ' BC;@B4 @@?; =A'#?'#B '= #C; '?!'#B ' @; < ' = ' < ; #?!'#B 'K ; ?=

' ' $ '3 ' !'

' $ '#B 'D ## ;'A? ;=< =#' = '!C;#B ;' ! L @ # ?='?!'#B ' BC;@B4 #B ; '?CAB#'#?'D ' C@B' ! <9' D8 ' ' ; '@?<<?=8>'@ 88 ' (>=? '?;' ?C=@ 88

S' ('J * A #; # ' < >' 8 E!C88>' @ 88' ' >=? '?!' < = !# ; 4 = ' ?#B ;' ! # K ; ?= 4 #?' @?= C8# =

' E #B' D?C#' < ## ;' ?!' ; 8 A ?=5' ?' !' A #; #' D' ?K ='= < ' #?' #B ' BC;@B4' #B ' < = # ;' ?!' B; #4' ?!' #B < 8 4' D>' ;#C ' ?!' #B ;' ?!! @ 4' ?;' #B >' E #B' ?#B ;' ! #' K ; ?= 4' CK?='= 8 A # ?='= !;?<' #B ;' BC;@B 4' < '< #' #?A L #B ;' ='= C@B' ! <D8

' *%' D 8?=A #B' #?' (>=? ' = ' ?C=@ 88' < = # L ; 88>' #?' # ;< = ' @?=#;? ; ' ?!' ! #B4' = ' @ ' ?!' @?= @ =@ 4' #?' #' ?E='= ;C8 ' = ' ; @# ?= ' !?;' D ## ;' ?; ; =A' ?!' #B ' KCD8 @"' E?; B K' ?!') ? ' = ' A? ;=< =#' ?!' B ' BC;@B5' #?' ; @ ' @?<L K8 =# ' ='= @ ' ?!' < 89 < = #; # ?=4' = ' C#B?L ; # # 8>' #?' # ;< = ' #B ' < 5' EB @B' @; ' = ' # ;< = # ?= ' X !' @?= ?= =#' #?' #B ' E?; ' ?!') ? ` ; ' #?' D ' ; @ ' E #B' ; ; =@ ' = ' CD9' < ! K=4' =?#' ?=8>' !?;' #B ;' A; < =#' E #B' #B ' E?; 4' DC#' 8!?' !?;' #B ' K?E ;' EB ; D>' #B >' ; ' < 4' ' D =A' ='= ?; = =@ ' ?!') ? 4' KK? =# ' #B ; C=#?' ='= B ' E?;

U' 0 0' (>=? ' ?;' ?C=@ 88 ' =@ ' #B ' K? #8 ' # < 4' EB #B ;' A = ; 88' ?;' K ;# @C8 ;4' < >' ;;4' = ' < =>' B ' ;; 5' #B ; !?; ' #B >' ; '=?#?' D ' < ' #B ' ;C8 ' ?!' ! #B' ?;' K; @# 4' DC#' #?' D ' C ' ' =' B 8K' ='= D?#B

' (+ (' = ' @?C=@ 88 ' ; ' #?' B = 8 ' ?;' @?=L @8C '=?#B =A' DC#' #B #' EB @B' ' @8 !8 @ 884' = ' ; '=?#' #?' =# ;< 8 ' E #B' @ 8' !! ; ' EB @B' @?=L @ ;='= #B ' ?< <?=E 8#B4' C=8 ! ' D>' E >' ?!' BC<D8 ' K # # ?=4' ='= @ ! ' F#; ?; = ;>4' ?;' D>' E >' ?!' L @ 4' !?;' # ! @# ?='= ?!' @?= @ =@ 4' !'#B >' D ' #B ; L C=#?' ; NC ; ' D>' #B ' @ 8' A #; #

' ^^^7 ' ' ' ' ' '
5%# ' ' #&5' $)' '% ; 35 ; -% $& $)' '%

' % &' D? ' ?!' < ='= !# ;' #B' ; #C;='= #?' C #' Q' ' @?;;CK# ?=5' DC#' #B ;' ?C8 ' XEB @B' = #B ;' ' =?;' 8 K' B =A' ='= <<?;# ' ' CD # =@ 4' << #8>' ; #C;='= #?') ? ' EB?' A ' #B <7 #B ' ?C8 ' ?!' #B ' ; AB# ?C 4' D =A' #B ='< ' K ;! @#' =' B?8 = ! 4' ; ' ; @ ' =#?' #B ' B AB #' B = 4' EB ; ' #B >' D B?8 ' #B ' ! @ ' ?!') ? ' ='= 8 AB#' = ' A8?;>4' E # =A' !?;' #B ' !C88' ; <K# ?='= ?!' #B =9' D? '5 = ' #B ' ?C8 ' ?!' #B ' E @" ' ; ' @ #' =#?' B 884' EB ; ' #B >' ; < ='= ='= #?; < =# ' = ' C## ;' ;"= ! 4' ; ; ' #?' #B ' C A < =#' ?!' #B ' A; #' >' ' #B ' #E?' K8 @ ' !?;' ?C8 ' K ; # ' !;?<' #B ;' D? 4' #B ' @; K#C; ' @"=?E8 A #B' =?=

S' %' #B ' 8 #' >4' C@B' ' ; ' !?C= ' 8 ' B 88' =?#' 4' DC#' D ' @B =A 4' = ' 88' #B ' ' B 88' D ' ; ' CK4' E #B' #B ' 8!' < ' D? 4' = ' =?= ' ?#B ;4' 8#B?CAB' E #B' !! ; =#' NC 8 # 4' EB @B' B 88' D ' C= # ' A ='= #?' #B ;' ?C8 ' !?;' ;

' % &' D? ' ?!' #B ' ⅈC= C #' B 884' D>' #B ' K?E ;' ?!' B; !#4' D ' ; ! ' #?' B?=?C;7' #B ' D? ' ?!' #B ' C #4' D>' B ' K ; #4' C=#?' B?=?C;4' = ' D ' < ' @?=L !?;< D8 ' #?' B ' ?E='= A8?; ?C ' D? >

' ^^^ . ' $ ' ' ' 7

') +' B #B' KK? =# ' ' >' EB ; ='= B ' E 88' C A ' #B ' E?;8 ' ='= ; AB# ?C = ! ' D>' J C ' B; #4' #?' EB?<' 88' K?E ;' = ' C A < =#' ' A ='= ?!' #B ' $ #B ;' *='= EB @B' >'=?#' ?=8>' #B ' K? # # ' =A 8' B 88' D ' C A 4' DC#' 8 " E ! ' '' K ; ?= ' #B #' B ' 8 ' CK?='= ;#B4' B 88' KK ;' D !?; ' #B ' #; DC= 88' ?!' B; #4' #?' A ' ='= @@?C=#' ?!' #B ;' #B?CAB# 4' E?; ' = ' 4' = ' #?' ; @ ' @@?; L =A' #?' EB #' #B >' B ' ?= ' ='= #B ' D? >4' EB #B ;' A?? ' ?;' 8

S' % &' = ' ?!') ? ' KK? =# =A' #B ' >' ' !?;' #B ' < = ! # # ?='= ?!' #B ' A8?;>' ?!' B ' < ;@>' ='= #B ' # ;= 88' 8 # ?='= ?!' #B ' 8 @#4' = ' ?!' B ' C # @ ' ='= #B ' <= # ?='= ?!' #B ' ; K;?D # 4' EB?' ; ' E @" ' = ' ?D =#5' !?;' #B ='= !B ''' #B ' ; AB# ?C ' A?' =#?' ;8 !85 =A' 8 ! 4' = ' ; @ ' #B #' !C ' = ! ' ?!' ?>' = ' ; !; B =A4' EB @B' !B 88' @?< ' !;?<' #B ' K; L =@ ' ?!' #B ' 0?; 5' DC#' #B ' E @" 4' EB?' "=?E' =?#) ? ' = ' ?D >' =?#' #B ' A?!K 88' ?!' J C ' B; !#4' B 88' D ' @ !8' =#?' # ;= 88' #?; < =# 4' = ' D ' KC= B ' E #B' ;8 !# =A' !#;C@# ?=4' !;?<' #B ' K; ! =@ ?!' #B ' 0?; 4' = ' !;?<' #B ' A8?;>' ?!' B ' K?E ;

. ' (' B; !#' E?C8 ' B ' C ' @ ;# =8>' #?' D ' K ;!E E' ' #B #' #B ; ' B 88' D ' ' >' ?!' C A < =#4' D?#B' #?' # ;' '' < ='= !;?<' =4' = ' !?;' #B ' A; # ;' @?= ?8 L # ?='= ?!' #B ' A? 8>' ='= #B ;' ; #>5' ?' E 88' B ' B ' #B #' >' C="=?E='= #?' < =4' #B #' #B >' < >' B " ' ?!!' '' @ < 88' @C; #>4' = ' D ' 8E > ' E #@B9' !C884' D @ C ' #B >' "=?E' =?#' #' EB #' B?C;' #B ' 0?; ' E 88' @?< 4' = ' < >' D ' ;' K; K ; ' #?' >' ?< 4' 0?; ' J C 4' @?< ' NC @"8>' < =

% &* ' # ' ?< ! ?= ;' DC< ' #B ' / ;8 < =#' # 88' 2 = >'= F#' #' #' ='= ' @8?@"' = ' @?=# =C ' 88' @ C! ' = ' K;?@ ! ' # 88' #B #' #><

%' &+* ') 4

' '

% &' ?88 ' ?!' / ;8 < =# @ 88

% &* ' # ' ?<< ! ?= ;' ?C< ' #B ' / ;8 < =#' # 88' !;> >'= F#' #' #' ='= ' @8?@"' = ' @?=# =C ' 88' @ C! ' = ' K;?@ ! ' # 88' #B #' # <

%' &+* ') 4

'FFF4' i4;Y@4F@

% &' ?88'?i'/ ;8 < =#@ 88

-6-+-74-;3"" 31-' +%QO' "874%' 27-73 %"7%-+;'D 1"+6-;'D -2i-;6"+' 78-+i"41%-

% &' 0?; '?<< i ?= ;') ; @ ' =' #B ' i# # ' ?i'/ ;8 < =#4 ?= ;=A'%B '#B '#B '#

%' ?C;= =A' #B ' ?C;#' ?!' JC @ #C; ' C=# 88' #B '! ; #' ?!' JC8>

' % &' 0?; ' ?; < ! ?= ; ') ; @ ' = 9#B ' &!# # ' ?!' / ;8 < =#' ?' ?C;= ' 88' ?C;#' ?!' JC @ L #C; ' E #B =' #B ' 1 =A ?< ' C=# 88' #B ' ! ; #' >' ?!' JC8>' = F#4' &F@ K# =A' B ' # 'K; ' ?C=@ 86' = ' &F@B NC ;4' = ' *=! ; ?;' ?C;#' !?;' ; <?> 9' =A ' 88 == ;8>4' = ' ?; = 'B ;'K; =#'#?' D 'KCD9' 8 !B ' #' #8 ' < ;@ #' @;?! ' ?!' & 7'D>' ; C8 '?;' @ ;' #B #' #B '8 < '=? >' @?< '#?' #B ' "=?E8 A ' ?!' 88' K ; ?= '@?=@ ;=

K& K?;#' = =#'#B ' ^J > =A' #B ' !'?!' 4 2 A#? =' Q' 1 ;"@C L D; AB#

% &' K?;#' ?!' #B ' ?< < ## '; '!?;' >> =A' #B ' ?' @# ?= '?!' #B ' !' ?!' #8 ' B>; '?!' 2 A9' #?C= ' = ' (# E ;#; '?!' 1 ;"@C D; AB#'#B #'= #B ;' B>; '=?;' # 8> ;#; 'D 'NC ;# ; '?='!?;'?#B ;' 8 4' EB @B' E ' KK;? =' '?; ; '#?'D ' =! ;#' =' #B ' @#'?!' / ;8 < =#' = =#'#B ' CKK8

) * ' # 5 ?< < ! ?= ;' ?C;= ' #B ' / ;8 < =#'# 88'#?' <?;;?E' #' =>= ' '@8?@"' = '@?=# =C ' 88' C! ' = 'K;?@ '# 88'#B #' #><' ;' ||

%' &+* ') 4

J' &' **4' 4+ 4,

% &' ?88 '?!' / ;8 < =#' @ 88 ' 4 ||

M - ' + -&H .'Q' +' / ' <*+. 6 .OM

% &' /; ! =#' ?; ; ' #B ' 8 ;" ' #?' ! 88' CK' ;' #B ' @#' BC;@B' A? ;=< =#' #B ' ! ; #' >' ?!' #B ' ! ## =A4' ?!' #B ' A = ; 88' ! <D8>' #?' D ' #B ' #B ; ' #BC;! >' ?!' @#?D ;' = F#4' EB @B' D =A' ?= ' #B B7' # ' B AB' ?< < ! ?= ; #?C@B ' #B ' @#' !?;' ! ##8 =A' #B ' BC;@B' A? ;=< =#4' @?=# = =A' = ' ; # ! @ H= '?!'#B '@D=! ?=' ?!' ! #B' < ' #' 2 !?9' < =! >4' = ' 8! '#?C@B '#B ' @#' = =#'#B ' CKK8>' = '#B ' @#' ?; ; =A' #B ' ?=C= ! = Z!(' #B ;' ?8L 8 @#?; ' = ' 8 ;" '#?'# " '#B '? #B'?!' B A =@ 4' 88' EB @B' @#' E ; '?; ; '#?'D 'K;?@8 <

%' # !> =A' #B ' ?=! ! ?='?!'$ ###B' Q' ! ##8 =A' /; D>#; =' BC;@B')? ;=< =#

V' ' ' (& *) &' 0 +' Q' 0 + ' %B ' 1 =A' = ' 3C = ' !# ' = '#B; ' !# # ' ?!' / ;8 < =#4' ?=@ =A' #'#?'B '#B ;'D?C= ' C#>4' !# ;' #B ' A; #' 8 ; =@ '#B #')? ' B #B'8 # 8>' ||E;?CAB#' !?;' #B ' BC;@B' = ' 1 =A ?<4' *=' #B ' 4 ! ; #'K8 @ '#?'! ##8 ' = ' @C; '#B ; ='#B '#;C 'K;?9' # # =#' 8 A ?=' @@?; =A' #?' #B ' #;C#B' ?!')8^ 4' E?; ' ' #' B #B' ?!' ' 8?=A' #>< ' D =' K;?! ! ' E #B =' #B ' 0 = 4' ' 8!?' #B ')? ;=< =#' ?!' B; !#' BC;@B' E #B =' #B ' # ?=' A; D8 '#?'#B 5' E?; ' ?!')? ' = ' <? #'@?= C@ '#?'#B ' =@ L

< =#' ?!'#;C 'K #>' = ')? 8 = ! ' = '#B ' !# D8 ! 9|' =A' ?!' K @ ' = ' #; =NC 88 #>' E #B =' #B ' 8< 4' = ' #B #' D>' = ' ;# @8 ' ?!'#B ' 8 < ' ?!' AB#4 *#' ' @8 ; ' #B #' K! 8 @ ' = '#B ' CK ; ?; #>'?!' =>'?!! @ ' =' #B ' BC;@B' D? 'K; D>#; ' * ' = ' B #B'D =' 'A; #' = ' = CKK?;# D8 'A; = ' = ' #;?CD8 '#?'#B ' # ?=4' = '@?=#; ;>'#?'#B ' =@8 = 9' 0 # ?=' ?!' #B 'A = ; 8 #>' ?!' #B 'K ?K8 ' ;' =@ '#B ' ; !?;< # ?=' #B >'B =A' ; !?;= '!;?<'K?K ;>'D>' /; D # ; ' = ' #B ; !?; ' ?CAB#' #?' B ' B?8 !# 5' 0>" 'D>' = ' @#'?!'#B '8 #' (! ?='?!'#B ' / ;8 9' | < =#' /; 8 @ ' ' D?8 8B '%B ; !?; '%B ;' L # 'E #B' > ' = '@?= =#'?!'#B ' '#B; '&!# # ' +? 'B ; D>'; 4' ; # ! ' = 'K ;K #C 88>'@?=! ;< ' 88' 8 E ' # #C# ' = ' @#' ?!' / ;8 < =#' < ' A =!#'K?K !>' = 'K K !#' = '!?;'#B '< =# = =@ ' = 'K; ! ; # ?=' ?!' #B '#;C ' ; !?; 'K;?# ! =#' ; 8 A ?=' = '!?;'#B ' #;C ' BC;@B' ?!' B; # E #B9' 7' =' #B ' " =A ?<' *=' E '! ;' '#B >'@?=! ;< ' #B ' < '?;' ; '< ' ='! ?C; '#B ; ?!5 0>" '#B >' D>'#B ! 'K; ! =#' # ! ' = ' !# D8 !#'#B ' ?=! !9' | ?=' ?!' ! #B'=?E' ; ' ='#B ;'K; ! =@ ' = ' ?# ' 4 = ' KK;? =' D '#B <' '#B 'KCD8 @!@' = ' ?E '^ ?=! ! ?=' ?!' #B ' BC;@B' @?=# = =A'#B '!C< < ' = ' CD # =@ ' ?!' #B ' ?@#; = ' ?!' #B ' ; !?;< | BC;@B 4' 2 B B' ?=! ! ?=' ?!' ! #B' ' CD ?>= ' 9' #?' #B ' K; ! =#' @#5' ' 8 ?' %B >' ? ' !# D8 !8;' # ! ' ' ' @?=! ;< '#B 'K; 8D>#; =' BC;@B')" 9' < < =#' = ' !@ K8 = '%B #' '#?' >'#B ') ? ;=L < =#'?!'#B ' BC;@B'D>' 1 ;" '! ! ?B 4'K; !?>#; 4' K;? = 88' !>=? ' = ') = ; 8' ! <B8 '; # ! ' = ' !# D8 !8 ' D>' ,, ' U' @#' J 5' 5'K ; 5' SZ' ==?' GS' &=# #C8 4' # ! @ # ?=' ?!' #B ' 0 D ;#>' ?!' #B ' #;C ' " ;" ' Q@' = '#B ; !# ;' ; @ 'D>' '#B ' A = ; 88' @?=! =#' ?!' #B ' # ?=' #?' B '#B '?=8>' A? ;=< =#' ?!' B; !#' BC;@B' E #B =' #B ' R,$/ ' + ' =A' = E =A' = ' ?=! < =A' #B ' !?;! ' @#'?!' / ;8 < =#' =' #B 'B 88' B '#B ; ?!4' F@ K#' #B #' K ;#' ?!' #4' ; 8 # =A' #?' K #;?= A ' EB @B' ' B !# ;' #?' D ' # " =' =#?' @?= ; # ?=' = ' @ = =A4' ==C88 =A' = ' < " =A' > ' #B ' @#' '?!' / ;8 < =#' !?88?E =A' W' @#' = =#' ; !# #C# ?='?!' B?K Z' J ' Z' / ; ' ' K' S7' @#' # ! =A' #B ' @#' '?!' #B ' ! <D8>' ' J ' 4' / ; Z' S ' K' 7' @#' = =#'#B '&8 @# ?='?!' ;@B9' D 8B?K ' = ' 8B?K 'J Z' 5' / ;Z' SS' ' K |8 [@#' &=# #C8 4' # ! @ # ?=' ?!' #B '! ; ' ;# @8 ' '#B ' A = ; 88' ! <D8>' #' / ;#B'J Z' Z' / ; 5'S.'Z) KZ' 7' @#' &=# #C8 ' !?;' #B ' ; # #C# ?=' = ' ; 9 !# D8 !8 9' < =#' ?!'#B ' = =#')? ;=< =#' ?!'#B ' BC;@B' D>7 ;@BD B?K ' = | B?K ' B ;'Z S'Z / ;'5' ' (!'5 SZ' @#' 8 #5' @#' = =#'#B ' ?= # #C# ?='?!' ' = # ?= 8' >=? ' B ;'5 S'Z / ;5* ! Z (! Z (|7Z @#' H' @#' A7' C@B' '; !C '#?' K?=' A =! Z' 8 =NC =# ' B ;Z S'5 / ;'Z'S7Z (! 5 S77 @#' S7' @#' =# #CL 8 ' @#' @"=?E8 A' = ' ! ;# =A' #B '; AB#' ?! ' C@@ ! ?=' #?' #B ' *<K ; 88' ;?E= '?!' (@?#8 = ' B ;Z SZ' / ;Z . ' @#' S7' @#' =# #C8 ' @#' = =#' 8 A ?=' = ' #B ' % 8' B ;Z SH7' / ;Z .4' @#' E #B' 88' ?#B ;' @#' 0 E ' # #C# ' ?; = =@ ' = 0 '

K;?@@ < # ?= = '#B ' # =' iC ' i ;' @@ == ;8>' '
#B ' i ' @# ' = '?#B ' ;' A = ; @@>' = 'K ;'# @C@ ;8>'
?E= =A' ?i' #B ' 8 # ' 1 =A'J < ' 4 = ' KK? =# =A'
D? ' < =# =?= ' ; '@@=#; ;>' ?;' K; C ' #?'
KCD8 @"' K; > ; ' i?;' 1 =A' 2 @@ <' = ' 3C ='
;>4' %B ; i?; 4 %B ;' # 'E #B' >@ ' = '
@?=i =#i?; ' ? 'B ; D>' @@ ; ' "#B ' BC;@B '
#B ;' ;# '?;' K;> 4 ' ' %?'D '
;'E ; ' ; <? ';' K; iD># ; =' = # ; ' F ;9'
@ =#5 = '#B # #B 'K; D># ; =' = # ; ' F ;9'
@ =A'#B ;'J = #;>'E #=' =>'?i'#B 'K ;?@B '
EB?'E ; '?C# ' =@ '#B ' i ; # ?i'J =C ;>'8 i 8 i?;'
#B ' @# @# ?i' / ;8 < #>' #?' @?< > =A'E #B'
=?=@?=i?;< #>' #?'K; 8 4 ?;'=?#@?< > =A'E #B'
#B ' @?C;i 'Ei'#B '#>< 4 = ' ;'=?E'; #?; 'D>'
#B ' 8 # ' @# ?i' / ;8 < =#5 = ' C@B' < =i# ;'
= ' 8 ;' ?=8>' '#B >'B ' < ## '?;'; @ '
I'; B 88B ; i# ;' < ## ?;' ; @ 4 = ' 8 ?' #B #
88' #B ' i ' /; D # ; =' = # ; ' B ' = ' B 88
B ' ; ABB#' #?' #B ' < =# = =@ 4 ; AB#' = ' ?#B ;'
B; ##' BC;@B4 E #B =' #B ' " =A ?<4 '#B >' ; '
?'; B 88D '8 A 88>' < ## '#?'K ;# @C8 ;' BC;@B 4
0>" 4 *=';KC; C =@ ' ?i'#B 'K; < i '%B ;' L
' ?'B ; D>' KKK =# #B ' i ; # < # =A'?i'#B '
) = ; 8' i <D8>'?i'#B ' BC;@B' ' D? ' i# D9
8 iB '#?'D ' # & =# #B '#B ; '#BC; >'?i' @#?D ;'
= F#?@?< ' *=' #B ' = # =#' > ;' *!T ' =>=# '
= 'D @ C ' < =>'@@<i?;<' = # ; ' #B ;'B '
;'# '?;'E ; ' ; <? 'i;?<'K; @B =A' =';B ;'
BC;@B 'K; @ =A' #B ' .' ?i' K; 8 G4 = '
?#B ; 'E ; ' K;>' 'i?;'=?#' A =A'?D =@ '#?'
#B ' @#' ?i' #B ' & # # ' < ' ' , >' ?i'
i?;' ; ' i =A' 88 ?#B ;' BC;@B' ?; ; 5 = '
iC;'#B ;' #' ' B ; D>' K;? > ' #B ' # EB # ? ;

' ' '*=B

i?;' #B ' ; = ; =A' ?i' #B ' BC<D8 ' # = ;' ?i' #B ;'
C#>' #B ' <?; ' ii @#C 88# #B '# ' #?@'' ?i' <?= >'
D 'K;? > '#?E ; '#B =@?C; A < =# = '< =L
= =@ ' ?i' #B 'i?;@ 4 E @B #B 'K; i =# F A =@ '
? ' ; NC>; 4 #?' D ' " K 'CK' E #B =' #B ' " =AL
?<9 = 'i?;' C@B'?#B ;'?@@@ ?=' ' < >'D '= @ i9'
; ' i?;' #B ' CKK?;'# ?i' #B ';' &i# # ' ?)? ;=L
< =#Z %B ; i?; ' #B ' ;' B 88 #B ;')? ;=L
BC<D8 ' C#>' = ' 8 @; #>' i?;' #B <i 8 ' = ' ='
= < 'i'#B ' " =A ?<'EB @B'#B >'; K; =# " '
?ii ;'#?'#B ;' # 'i' ' (CKK8>'?i' %E?' J *8@
8 ?= 4 >=# ='#B?C = 4 ='BC= ; #B' = '#B ;>#'
&F# = =A' ='EB?8 '#?'#E =#>' AB#'K == 'i@?#' < ?= >'
%?'D '; i = 'CK8 i# ?C#?i'#B 'O = ' =#'?i'
#B '1 =A ?<'i;?<'#B ' ; 88 B>'; ' = 'DC;AB 5
*=' < ==K;' = ' # #B ' # ;< 'i?88?E =A' W %B '
?C< ' ?i' ii> 'BC= ; #B' =>' ='#B?C = '
EB?i ' = ?; '#B >'E ; ' 8> ; 'i;?<'K?K ;>'
= ' ;D #; ;>'4 = '#B ' @?= # =#K;??i '#B >'
B 'i?i'B ' ?> 88' ii @# ?=' = '# = ;'@ ; 'i?i'#B '
@?=@ ;= ' ?i' #B ' # ?=4 = 'E #B " =A'?i'#B '
#B # B ' J #>' =A A ' =' = 'FK =i 'E ;;' '
i?;' #B ' i #>' ?i' #B ' 1 =A ?<' = '#B 'K; ; L
?i=' ?i' #B ' K;'?# # =#' ; 8 A ?=5 %B >'#?' =@ '
#B ;' C#>' = ' A; # #C ' +? ' B ; D>' + @8 ; 4
%B # #B ' 1 =A ?<' E 88 @B ;iC88>' B W ; ' #B ' ;'
8 ' = ' i?;'#C= ' =' =>'@ Ci 'EB ; =' #B ' 1 =A'
= ' 3C = ' # 4!#B ;' B?=?C;' = ' i #>'
< >' D ' @?=@ ;= 7 = ' @?=@ =A' #' = @ i ;>'

' ' '*=B ' '

= '*I' =>=# '!?C;'> 9 '%?'D '; ! ' #'#B ' # ;< '?!' = 8 < ' = 'O <D '> ;8>'D ' NC ' K?;# ?= 4' D A == =A' #B ' ! ; #' # ;< ' K >< =#' #B ; ?!'D =A' #E?' ?= #B ' !' = ' = 'B 8!' #' #B ' # ; '?!' = 8 < ' ^' =>=# '?= 4' = ' ?' !?;#B' # ;< 8>'#B ; !# ;' C; =A' #B ' '!?C;' > ; '%B #' '#?' >

%B ' B ; ! ?<'?!'& =DC;AB' %B ' ?C; '?!'#B; ' #B?C = 44' ?= ' BC= ; #B' = ' AB#>'#B; 'KC= ' AB#' B 88 =A ' @?#' <?= >'<?= #B8>'

%B ' B ; ! ?<'?!' =A#?C=4' #B ' ?C< '?!'%E?' #B?C = ' ='BC= ; ; 7'& AB#>'#E?'KC= ' = ' F' B 88 =A

%B ' B ; ! ?< '?!' ;E @"' %B ' ?C< '?!'#E?' #B?C = 4' AB#' BC= ; #B'#B ;# ='KC= ' = '?= ' B 88 =A

%B ' B ; !! ?< '?!' ?FDC;AB4'%B ' ?C< '?!'%B; ' #B?E = ' F'BC= ; '& AB#>' F'KC= ' =# ='B 88 =A' F'K == ' 4

%B ' B ; ! ?< '?!' (8" ;"4'%B ' ?C< '?!'=>= ' BC= ; '!?C;'K@E= 4'=>= '; 8&=A '

%B ' B ; ! ?<'?!'/ D8 4'%B ' ?C< '?!'?= '#B?CL = '!?C;#>'#E?'KC= ' = '* AB#' B 88 =A Z

%B ' 1-+%65" .' ?!' 27-+S' %B ' ,"8 . -' "6' %B; ' 31"8,275'7073%-' 7-' :875,'275'39 -!Q-',1%!!%7#,

%B ' B ; ! ?<'?!' +C<!; 4' %B ' ?C< '?!'%E?' #B?C = ' ='BC= ; #B'#E 8 'KC= ' = ' =L # ='B 88 =A

%B ' (B ; ! ?<'?!' 2 A#?C=4' #B ' ?C< '?!'?= ' #B?C = ' = '!A';'K?C= '! !# C' B 88 =A 5

%B ' # E ;#; '?!'1 ;"@C DC;AB' ?= ' B?C! = ' F' BC= ; #B' =#>'!?C;'KC= 4' 8 ='B 88 =A'

%B '(B ; ! ?<'?!' ;4' %B ' ?C< '?!'%B; '#B?CL = ' AB#'BC= ; ' =#>'KC= 'Q'!> ' B 88 =A 4

%B ' B ; ! ?<'?!'+C<D ;#?='%B ' ?C< '?!' ='BC= ; ' F# '!?E'KC= ' = '# ='B 88 =A '

%B ' B ; ! ?< '?!' C# '%B ' ?C< '?!'%B; 'BC=L ; ' AB#'KC= 4' AB#' B 88 =A ' = '#B; 'K ==

%B ' B ; ! ?<'?!' =!; E'%B ' ?C< '?!'?= '#B?CL = '#B; 'BC= ; '!>!# '#B; 'KC= ' = ' =' B ; A 4

%B ' B ; ! ?<'?!'(# ;8 =A4'%B ' ?C B '?! = '#B?CL = ' ='BC= ; '! !# '!?C;'KC= '!?C;' B 88 =A ' = ' F'K ==

%B ' B ; ! ?<'?!' 0 =8 #BA?E4' %B ' ?C< '?!'?= '#B?C = 4' ?= ' BC= ; 4' F# ' =>= ' KF = ' = ' AB# ='B 88 =A Z

%B '(B ; ! ?<'?!'/ ;#B'%B ' ?C< '?!'!> '#B?CL = '#B ;#>' AB#'KC= 4' < '!?C;# ='B !! =

%B ' B ; !! ?<'?!'1 =@ ; = 4'#B ' ?C< '?!' >= ' BC= ; ' AB#>'!?C;'KC= ' = '?= ' B 88 =A'

%B ' B ; ! ?<'?!' B ; =4'%B ' (?C< '?!'!!?C;' #B?E = ' =# ' ='KC= 'Q'=>=# ='B! B=A '

%B ' B ; ! ?<'?!'*=C ;= 4'%B ' ?C< '?!'?= '#B?C = '%E?' BC= ; ' < '#B ;# ='KC= 7' ?= ' B 88 =A' F'K ==

%B ' (B ; ! ?<'?!'*8?!'#B ' ?C< '?!' = '#B?EL = '#B; 'BC= ; ' = '(=#>' ='KC= '' L =# ='B 88 =A ' F'K ==

%B ' B ; ! ?<'?!' ;= 4'%B ' ?C< '?!'%E?'BC=L ; ' =#>' ='KC= ' = ' F# ='B 88 =A 4

%B ' B ; ! ?<'?!' ;?< ;#>4'%B ' ?C< '?!' F# ' AB#'KC= ' = '! ' B 88 =A

%B ' B ; ! ?< ' ?!' ;A>8 4'%B ' ?C< ' ?!' ?= ' #B?E = '=>' 'BC= ; '!?C;# ' ='KC= '# ='B 88 =A ' = ' >= 'K == '

%B ' B ; ! ?< ' ?!' !8!>!! ' = ' 1 =;?! 4'%B ' ?C< ' ?!' !!> '#B?E = 4'?= 'BC= ; ' =#>'#E?'KC= 4'

%B ' B ; ! ?< ' ?!' *!?;! ;4' %B ' ?E< ' ?!' #B; ' #B?C = 4' #E?' BC= ; #B' =# '#B; 'KC= ' = ' ! !# ='B 88 =A 5

%B ' B # 8! XY='X;!' <!!'#B ' ?E< '?!' $ '#B?CL = ' = 'BC= ; '! !# 'KC= ' = '!?C;' B 88 =A 5

%B ' B ; ! ?<'?!' (C#B ;8 = '#B ' ?C< '?!'#B; ' BC= ; '#B ;#>' F'KC= 4

%B ' B ; ! ?<'?!' #B= '%B ' ?C< '?!' ! > ' BC= ; 4' >C; '=>= 'KC= ' = '!> ' B 8 =A 4

%B ' B ; ! ?< '?!'&8A = 4'%B ' ?E< '?!' = '#B?EL = '!! !# '=>= 'KC= ' = '*!> ' B 8B=A

%B ' B ; ! ?< '?!' ;"= >' = 'p #8 = 4'#B ' ?C< '?!' = '#B?E = '& AB#>' AB#'KC= 4' = '# ='B 8L 8 =A

%B ' B ; ! ?<'?!' 8 @"< == =4' %B ' !?C< '?!' #B; 'BC= ; #B'! !# '#E?'KC= ' > ='B 88 =A ' = ' #B; 'K == 4' @?#' <?= >

') &(

%B ' #>'?!'&@ =DC;AB' %B ' ?C< '?!' !!?C;'#B?CL = 'K#<

%B ' C;AB'?!'/ ;#B4' %B ' ?C< '?!'! DC;'BC= ; ' F# '#E?'KC= 5

%B ' C;AB'?!' +C= ! '%B ' ?C< '?!' ='BC=L ; '#B ;#>'#E?'KC= 5 4 ⅈ

%B ' C;AB'?!' B ; =4'%B '!?C< '?!'& AB#'BC=L ; ' = '!?C;# 'KC=

%B ' C;AB'?!'(# ;8 =A4'%B ' ?C< '?!'%E?'BC=L ; #B'R ' F# ='KC=

%B ' C;AB'?!' 0 =8 #BA?E4' %B ' ?C< '?!' %E?' BC= ; ' = '!?C;'KC=

%B ' #>'?!'(=#' = ; E '%B ' ?E< '?!'%E?' BC= ; '(=#>'& AB#'KC=

%B ' #>'?!')8 A?E'%B ' ?C< '?!'@ '%B?E = ' !?C;'BC= ; ' = '!!?C;#>'KC= '

%B 'DC;AB'?!' ;'%B ' ?C< '?!'%E?'BC= ; ' = ' & AB#'KC=

%B ' DC;AB'?!' =A#?C= 4' %B ' ?C< '?!'%E?' BC= ; ' = '(F# ='KC= 4ⅈ

%B ' DC;AB'?!'+> ;'# #B ' ?C< '?!' >=# '' F' KC=

%B 'DC;AB'?!'1 ;"@ 8 4'%B ' ?C< '?!'%E?'BC=L ; ' =#>' F'KC## 4

% 2 ‘DC;AB4?!‘ ?=#;? ‘ %B ‘ ?C< ‘ ?!‘ %E?‘ BC=L ; ‘#E =#>‘ & AB#‘ KC= 4

%B ‘DC;AB‘?!‘ ?EK ;‘%B ‘ ?E = ‘?!‘ = ‘BC= ; #B‘ = ‘#E =#>‘ KC=

%B ‘ DC;AB‘ ?!‘ = #;C#B ;‘ & !# ;‘5 %B ‘ ?C< ‘ ?!‘ #E =#>‘ !?C;‘ KC= 4

%B ‘DC;AB‘?!‘ +C<!; ‘ %B ‘ ?C< ‘ ?!‘ %E?‘ BC=9‘ ; #B‘ KC= 4

%B?‘ DC;AB‘ ?!‘ *=C < 4‘ %B ‘ ?C< ‘?!‘%E?‘ BC=L ; ‘ = ‘ F# =‘ KC=

%B ‘DC;AB‘?!‘ ;C=# 8 = 4‘ %B ‘ ?C< ‘?!‘?= ‘BC=L ; ‘#B ;#>‘ & AB#‘ KC= 4‘ 4

%B ‘DC;AB‘?!‘*=C ;" #B =A4‘ %B ‘ ?C< ‘?!‘!!?C;#>‘ 7 <AB#‘ KC=

%B ‘DC;AB‘?!‘1 =AB?< 4‘ %B ‘ ?C< ‘?!‘!! !# ‘!?C;‘ KC=

%B ‘DC;AB‘?!‘ ; @B =‘#B ‘ ?C< ‘?!‘ F# ‘ F‘KC= ‘

%B ‘ C;AB‘ ?!‘*; = 4‘ %B ‘ ?C< ‘?!‘?= ‘BC= ; ‘ = ‘& AB#‘ KC=

%B ‘DC;AB‘?!‘J DC;AB‘#B ‘ ?C< ‘?!‘ = ‘BC= ; ‘ = ‘& AB#‘ KC=

%B ‘DC;AB‘?!‘ 1 ;"< D; AB#‘#B ‘ ?C< ‘?!‘ >=# ‘ F‘KC=

%B ‘DC;AB‘?!‘ 2 A#?C= ‘#B ‘ ?C< ‘?!‘!!?C; @?; ‘ !?C;‘ KC=

%B ‘ DC;AB‘?!‘ / ## =E >< ‘ %B ‘ ?C< ‘?!‘!!?C;L @?; ‘KC=

%B ‘DC;AB‘?!‘+C<! 9<8 = ‘ %B ‘!?C< ‘ ?!‘ =>=# ‘ F‘K==

%B ‘ DC;AB‘ ?!‘ = #;C#B ;‘ E # ;‘ %B ‘ ?C< ‘ ?!‘ %B ;#>‘KC=

%B ‘ DC;AB‘ ?!‘ (8" ;"‘ %B ‘ ?C< ‘ ?!‘ !?C; @?; ‘ KC= 4

%B ‘ DC;AB‘ ?!‘ +C<D ;#?C=‘ %B ‘ ?C< ‘ ?!‘ F# ‘ KC=

%B ‘ C;AB‘ ?!‘ & =!; E4‘ #B ‘ ?C< ‘ ?!‘ !!?C;# ‘ & AB#‘ KC=

%B ‘DC;AB‘?!‘+C<D ;‘ #B ‘ ?C< ‘ ?!‘ =#>‘#E?‘ KC= 4

%B ‘ DC;AB‘ ?!‘ 0 = ;"‘ #B ‘ !?C< ‘ ?!‘ =#>‘#E?‘ KC=

%B ‘DC;AB‘?!‘ D ;D;?#BE @"‘ %B ‘ ?C< ‘ ?!‘ ! !# ‘ !?C;‘ KC=

%B ‘DC;AB‘?!‘&8A = ‘ %B ‘ ?C< ‘?!‘ = ‘BC= ; #B‘ = ‘#E =# ‘KC=

%B ‘ DC;AB‘ ?!‘ / D8 4‘ #B ‘ ?C< ‘?!‘ =#>‘#E?‘ KC=

%B ‘ DC;AB‘ ?!‘ ; 88‘ #B ‘ ?C< ‘ ?!‘ = ‘BC= ; #B‘ = ‘& AB#‘ KC=

%B ‘DC;AB‘?!‘% >= ‘#B ‘ ?C< ‘?!‘!!?C;#>‘#E?‘KC=

%B ‘DC;AB‘?!‘ C88;?! ‘ #B ‘ ?C< ‘ ?!‘ !!?C;# ‘ AB#‘ KC=

%B ‘DC;AB‘?!‘ <!‘ %B ‘ ?C< ‘ ?!‘ !!?C;#>‘ & AB#‘ KC=

%B ‘DC;AB‘?!‘2 B #B?;= ‘#B ‘ ?C< ‘?!‘#E 8 ‘KC= ‘

%B ‘ DC;AB‘ ?!‘ !!?;! ;‘ %B ‘ ?C< ‘ ?!‘%E =#>‘ !?C;‘ KC=

%B ‘ DC TAB‘ ?!‘ ?#B >‘ #B ‘ ?C< ‘ ?!‘ #B ;#>‘ F‘ KC=

%B ‘DC;AB‘?!‘ < ‘%B ‘ ?C< ‘?!‘& AB# =‘KC= ‘

%B ‘DC;AB‘?!‘!!?;; ! ‘#B ‘ ?C< ‘ ?!‘%B ;#>‘ KC= ‘

%B ‘DC;AB‘?!‘ C#B ;A8 =4‘ %B ‘ ?C< ‘ ?!‘& AB# =‘ KC=

%B ‘ DC;AB‘ ?!‘ ?;#BD ;E @"4‘ %B ‘ ?C< ‘ ?!‘ F‘ KC=

%B ‘DC;AB‘?!‘ C88 =‘#B ‘ ?C< ‘?!‘#E 8 ‘KC= ‘

%B 4‘DC;AB‘ ?!‘ 0 C ;‘ %B ‘ ?C< ‘ ?!‘ %B ;#>‘ F‘ KC=

%B ‘DC;AB‘?!‘1 =#? ;‘#B ‘ ?C< ‘?!‘#E 8 ‘KC= ‘

%B ‘DC;AB‘?!‘1 8; =>‘%B ‘ ?C< ‘?!‘%E 8 ‘KC= ‘

%B ‘DC;AB‘?!‘ == =‘#B ‘ ?C< ‘?!‘%E 8 ‘KC= ‘

%B ‘ DC;AB‘?!‘ 0? B< D =‘ #B ‘ ?C< ‘ ?!‘ #E 8 ‘ KC=

%B ‘DC;AB‘?!‘(=NCB ;‘#B ‘ ?C< ‘?!‘%E 8 ‘KC= ‘

%B ‘DC;AB‘?!‘) 88?E >‘#B ‘ ?C< ‘?!‘ F‘KC= ‘

%B ‘DC;AB‘?!‘+ =AE 88‘#B ‘ ?E< ‘?!‘#E 8 ‘KC= ‘

%B ‘ DC;AB‘ ?!‘ +?;=?@"‘ %B ‘ ?C< ‘ ?!‘ & AB# =‘ K?C=

%B ‘ DC;AB‘ ?!‘ 3C = ! ;; ‘ %B ‘ ?C< ‘ ?!‘ F# ‘ KC=

%B ‘DC;AB‘?!‘!!?;# ;?! ‘ %B ‘!?C< ‘?!‘#B ;#>‘KC= ‘

%B ‘DC;AB‘?!‘ ;?< ;#>‘#B ‘ ?C< ‘?!‘%8 ;#>‘KC=

%B ‘DC;AB‘?!‘*= ;?C; >‘ #B ‘ ?C< ‘ ?!‘ & AB# =‘ KC=

%B ‘DC;AB‘?!‘2 "‘#B ‘ ?E< ‘?!‘%E =#>‘KC= ‘

%B ‘DC;AB‘?!‘*= ;D ; ‘#B ‘ ?C< ‘?!‘ F‘KC=

%B ‘DC;AB‘?!‘1 ;"E 88‘ #B ‘ ?C< ‘ ?!‘ F#>‘KC= ‘ @?# ‘ <?= >

+‘#B ‘1 =A‘ = ‘3C = ‘* * # ‘@?= ; =A‘ #B #‘#B ‘ CKK8>‘ ‘A; =# ‘ !?;‘ ?‘ = @ ! ;>‘ = ‘ = ‘ KC;K? ‘ ? ‘E #B‘ >@ ‘ = ‘ @?= =#?!‘#B ‘ & # # ‘ ?!‘ / ;8 < =#‘ + @8 ; ‘ %B #‘ =?‘ K ; ?= ‘ ?;‘ K ; ?= ‘ B 88‘ D ‘ F < ‘ !;?<‘ K >< =#‘ ?!‘ #B ;‘ K;?K?;# ?= ‘ ?!‘#B ‘ CKK8>4‘ !?;‘#B =‖ 0 = 4‘ CK?=‘ =>‘K; # F#‘EB # ? ;4‘ F@ K# =A‘ <?;# ! ‘ 0 = ‘ 88 == ;8>4‘ =?#E #B # = =A‘ ?!‘ =>‘ !?;< ;‘ 0 E‘K; 8 A ‘ ?;‘ @#‘ ?!‘ / ;8 < =#‘ =‘#B ‘ @?=9‘ #; ;‘ = ‘ !?;‘#B ‘ D ## ;‘ = ‘ <?; ‘ K >‘ *=L D; =A =A‘ ?!‘#B ‘ ‘ CKK8>‘ %B ;‘* * # ‘E #B‘ #B ‘ >@ ‘ Q‘ @?= =#‘ !?;! ‘ ? ‘ =?< = # ‘ = ‘ KK? =#‘ #B ‘ K ; ?= ‘ !# < < 4‘ #?‘ D ‘ ?< < #‘ ?= ; ‘ E #B =‘ #B ‘ ; K @# ‘ B>; ‘ !?;‘ ?; ; =A‘ Q‘ CK8 !# =A‘#B ‘ < 4 W

$?;‘#B ‘ B>; ‘?!‘& =DC;AB

%B ‘ & ;8 ‘ ?!‘ 0?#B =4‘ %B ‘ & ;8 ‘ ?!‘ 0 C ; 8 4‘ %B ‘ & ;8 ‘ ?!‘%E 884‘%B ‘ !@?C=#?!‘ F =!?; 4‘ %B ‘ @?C=#‘ ?!‘ % ;D #4‘ %B ‘ 0?; ‘ D?##8 4‘ %8 ‘ 0?; ‘% # ;4‘ %B ‘ 0?; ‘ ?8 4‘%B ‘ 0?; ‘ %?;9

KB @B =' %B ' O?; ' !!?;; # ;4 %B ' # ;' ?!' 89
< ; =?' (I J?B=' B ' ?!' * ED>#B' ?= ' ?!' #B '
= #?; ' ?!'#B '@?' A '?!'JC # @ 4 (I J < ' !!?C8 '
?!' ?88 =A#?C= 4 (;' J?B=' #8 = ' ?!' 8; A'
?= '?!'#B ' = #?; '?!'#B ' ?' A '?!' JC # @ 4 (;'
) ?;A ' 1 =W '?!' ? B CAB4 ?D ;# +C= '
?!' ;= #?='?= '?!'#B ' = #?; '?!'#B ' ?' A '?!'
JC # @ 4 J?B=' 2 C@B?K' ?!' & <?= #?=4 (;' J?B='
O C ;' ?!' !!?C=# =B 88 ?= '?!' #B ' = #?; '?!' #B '
?' A '?!' JC # @ 4 (;' J?B=' + 8< B?>' ?!' #B #
*8"4 (;' J?B=' !!?C8 ' ?!' 8!#?=4 (;' 8 F = ;'
) D ?= '?!' % =#8 = 4 (;' J?B=' 8 ;" ' ?!' / ==>9'
@C " ' (;' 2 88 <' +;C<<?= ' ?!' #B?;= =4
(;' / #; @"' 1 D # ?!' + =4 ;@BD 8 ' ?C=A'?!'
O =>4 C ' 2 ' @ '?!' *=A8 #?C=4 (;' J?B='
<! >'?!' 2 B # B '4 (KP ?D ;# ; '?!' (C@B9
#?=B 88 ' (;' ;"' ! '?!' ?@"K =4 (;' 2 8 ' <'
(B ;K'?!' (#?==>B '4 (I 2 ' <' == =A'?!' 2 89
!?; 4 (;'J < F'+ @"'?!'/; !!! 4 J?B='%; ## ;'
?!' ?;#?C=B '4 %BD< ' ; A'?!' @" ;#?C=4
8 F = ;' D # ?!' ; A =# ==>4 (;' ?D ;#
>8= ' ?!' <#?C=4 #; @"' < 8#?='?!' !! 88 4
7 J?B=' == =AB < '?!' 2 ?? B 84 I ? ; @"' H9
" =W '?!'/; !#?=B '4 2 # ?= '?!'(C@B9
#?=4 J?B=' !!?C' ' ?!' #B?4 J < ' ; '>?C=A ;'
?!'(C@B#?=B '4 J < ' C;; >'?!'+ E B ;4 B ;8 '
C;; >' ?!' 8 =4 I J < ' C=# ;' ?!' C ;9'
B?C 4 J?B=' (@?## ?!' 8 =>4 B ;8 ' (@?## ?!'
88 4 (;' J?B=') D ?= ' >?C=A ;' ?!' / =#8 = 4
(;' 2 8 <' ; '>?C=A ;'?!' E! >#B4%B 'O ; '
?!' ; A< 88 ;4 J < ' , ; @B ?!'+ >8 E4 %B 'O ; '
?!' 4 J < 'JC # @ '>?C=A ;' ?!' & # ;' ; KB9'
#?C=4 I + ' +C=<C ; '?!' C;; B '4 2 ' <'
AA ;' ?!' 2 ?8< #4 = ; E' ;?E=' ?!' ; ^"' I
J < ' O?E ' ?!' ;@B #?C=4 &!8 ' ?!
(?C#B 4 I J?8<' =A '?!' <D?'
@B ; ?='?!' (< #?=4 I J < '&88 '?!' (# =9'
B?K' <>8= ' %B ' /;? (# ?!' & =DC;AB'!?;' #B '
#>< '!?;' #B ' ;;?= '?!' ;CAB#KC= 4 %B ' 8 !#
D 88 '?!' C8 8DC;AB'!?;' #B ' #>< ' %B ' 8 !#
' '?!' + 8" #B'!?;' #B ' #>< ' %B ' +C#@B '?!'
C@@8 CAB ' ' '!?;' #B ' #>< 4 %B ' +C#@B '?!'
O C ; 8 ' ' '!?;' #B ' #>< 5

&?;' #B ' B>; '?!' =A#?C= '
%B ' ;NC '?!'+?CA8 ' %B ' & ;8 '?!'2 =#?C= '
%B ' & ;8 '?!' O C ; 8 ' %B ' & ;8 '?!' %E 88
%B ' O?; ' % # ;4 %B ' O?; ' 8B =4 (;' J?B='
; ' ?!' ED>#B4 ?= '?!' #B ' (= #?; '?!' #B '
?' A '?!' JC # @ 4 (;' J?B=' '' ?!' +C=A8 ! 4
(;' / #; @"' KDC;='?!' 8 @"@ !#8 4 (;' J?B=' (=L
@8 ;' ?!' O?@B = 4 I ?D ;# O C ;'?!' ' <?C#B4
J < ' < '#?C='?!' #B ;E @"4 ;@BD 8 ' C;L
; >'?!'(K?#4 ?D ;# < 8#?='?!' /; < == ='?= '
?!' #B ' = #?; '?!' #B ' ?' A '?!' JC # @ 4 J < '
(> ;! '?!' C@B8 E'>?C=A ;4 !!; =@ ' 1 =8?@B'?!'
) 8< ;#?C='>?C=A ;4 / #; @"' KDC< '?!' (< 9'
#?C=4 2 ' <' KDC< '?!' = #?C=4 (;' 2 8L
8 <' ; '?!' ED>#B4 (;' / #; @"' ;?C= '?!'
?8 #?C= 4 @B ; ' ? "DC< '?!' 8 ;" =A#?C=

2 ' <' ' '?!' O < =A#?C= 4 J < '+?CA 88
?!' C=8 = 4 (;' ?D ;# (=@8 ;'?!' (# = #?C=4
/ #; @"' KDC< '?!' C="; A4 ?D ;# KDC< '
?!' ;!?; 4 (;' J < '>' ?!' O =K8C<4 ?D ;#
;?C= '?!' EB '4 E#?='?!' #B #*8"4
;') ?;A ' 8>DC;#?C='?!'&A ' @ <?4 J < '
< 8#?C= '?!' 2 # ; K?#4 = ; E' ! ' #@B ;'?!'
(8#?C= 4 (;' J?B=' O C ;'?!' !!DC=# =B ''?= '?!'
#B ' (= #?; '?!' #B ' ?' A '?!' JC!# @ 4 <'
?@"DC;='?!' ;< !#?C=4 + ' KDC< '?!'
C<D 4 J < ' C ; '?!' ?E; B?C! 4 / #; @"'
2 ;DC< '?!')? !?; 4 J < '4+C;B < '?!'
OC!!= 4 2 ' <' !D # ?!'+ ;8 #?C=4 %B '& ;8 '
?!' ?FDC;AB ' ' '!?;' #B ' #>< ' (;') ?;A '
(C ## '?!' 8A?= 4 @B ?='?!'(> !! 4
O =A!#?C='?!' (8#@? # 4 2 '8 <' ?; 9'
?= '?!'/; #?C=') ' =A 4 J < ' E 8 '?!', $/' '
#?C=' %B ' O ; '?!' 2 C@B#?C=' >' '!?;' #B '
#>< 4 ?D ;# KDC< ' '1 #B4 %B 'D 88 '!?;'
#B ' +C#@B '?!' O C ; 8 4 ?D ;# KDC;='?!'
2 B #DC;AB4 %B 'O?; '&' D =" ' ' '!?;' #B '
#>< 4 O E ' =#?!'+;>DC<!?; 4 J?B=' (=@8 ;'
>?C=A ;'?!' (# =!?=@4 I J < '(@?=A ''%C#?;'
?!' 2 B # " ;" 4 ;>'!!# #@B ;'%C#?;'?!' D ;8 4
%B 'O ; '?!' ;; =A#?C='! @#?;'!?;'#B '#><

&?;' #B ' B ; '?!' ;E @"
%B ' ;NC '?!'+?CA8 ' %B '& ;8 '?!'O C ;L
8 '?;'B 'D 88 '%B '& ;8 '?!' ?< '?;'B ' '
(# ?A ;' ?A'?!' ;@ ;! 4 I 8 F = ;' (E =9'
#?C='?!' ; =A#?C='?= '?!' #B ' (= #?; '?!' #B '
?' A '?!'JC # @ 4 (;' J?B=' (=@8 ;'?!' O?=A!?;9'
< @ 4 (;' J?B=' ?< '?!' 8 @" ;4 (;' J < '
+?='?!' E#?C=4 (;' J < ' ? "DC< '?!' #B #
*8"4 (;' ?D ;# (# E ;# ?!' 88 =D ="4 (;' J?B='
''?!' +C=A8 ! 4 (;' 2 ' <' (@?#'?!' ; ='
8 ;' = '>?C=A ;' (;'# -' ?@B '?!' *== ;9'
*; #B4 (;' / #; @"' ?< '?!' OC = =4) ?;A '
?< '?!' 2 ;DC< 4 J?B=' (E =#?=I?!' #B #
+"4 J?B=' =#?= '?!' O <D ;#?C= 4 J?B=' 1 ;'?!'
?; #?C= 4 J?B=' 1 ;'?!' ; 4) ?;A ' <! >'
?!' & =A#?C= ' ' & A ;'?!' 2 ;8 4 7'
8 F = ;' ;?C= '?!' %B?;=> >" 4 J?B=' ?< '
?!' >= E 88 4) ?;A ' ?< '?!' 1 << ;AB < 4
I J?B=' 8 B ('?!'%?!# 4 ?D ;# ;?C= '?!' 8 @"9'
BC< ' ?< '?!' ?C= 'E?? 4 / #; @"' 2 ; 9'
8 E'?!' ;; B CAB4 J < '/; =A8 '?!'); ="=?E4
) ?;A ' ?< '?!' ! = = 4 2 8 ' <' ?@"BC;= '
?!' 8 ; 4) ?;A ' ?< '?!' (=# O ?= ; 4 I
J = a' + '?!' ?8 =A"=?E 4 I + ' ?< '
?!' ;?! ; AA'?= '?!'#B ' (= #?; '?!'#B ' ?' A '?!'
JC # @ 4 I J < ' +?CA8 ' ?!' & < 8 E4 8 FL
= ;' ?< !' DB >4 J?B='2 # ?= '?!' J ; =9'
! 8 4I 8 F = ;'%;?## ;' ?!' 1 ##8 B '4 %B?< '
?@B '?!' 2 B # ?< B '4 (;' / #; @"' ?< '?!'
/?8E ;#4 /; =A8 ' 8 ;' = '>?C=A ;' ?!
(# #@B '4 (C;' J < '>'?!'9O =K8C<4 %B '%C#?;'
?!' E< >= 4 ?E #?!'!! E 4 / #; @"'
?< '>?C=A ;'?!'/?8E ;#4) ?;A ' ' '?!'J ; 9'
E?? '%B '#C#?;'?!'O >" ;"4 %B 'O >' 8#?C=
<

88 ' !?;' #B ' #>< 4 B ;8 ' (E =#?=' >?C=A ;' ?!'
; =A#?C=4 J?B=' ?< ' ?!' ;??< B?C 4 J?B=' (@?# ?!' 2 ' '4 &; " = ' ?!' (! 8 4
= ' ?!' ?; #?C=4 (;' / #; @"' (@?## ?!' =@;C<4
P ?< ' ?!' !!8 ! 4 J?B=' %;?## ;' ?!' ?;#?=9'
B 884 8 F = ;'%;?## ;' ?!' 2 ?K =4 ;>< ;'
?!'& ; <4 J?B=' 1 =A' ?!' ?A =A; =4
!! 8@?= ;' ?!' 1 =@?;#B4 < >' >?C=A ;' ?!
& =A#?C=4) ?;A ' ?< ' ?!' 1 88?4 J < ' 9'
K #B' ?!' >; @8 CAB4 J < ' / # ; ' ?!' B KK 884
8 F = ;' ?@"DC;= ' ?!' 8 @"! = 8= 4 8 F = ;'
?< ' ?!' E#?=' ?!' 2 B # ?< 4 J < ' @?8!?='
?!'%; B;?C= 4 J?B=' @B ?=' ?!' ?E =4 7 ;>'
?< ' ?!' 1 >< 4 J?B=' ?< ' >?C=A ;' ?!' EL
#?=4 (! 8 F = ;' ?< ' ?!' =#?C= 4) ?;A '
2 =; < ' ?!' &><?C#B4 %B ' #C#?;' ?;' B <D ;9'
8 = ' ?!' 0 >' 1 ;"< >= 4 2 88 <' =@;C<' ='
C=! 4 2 88 <' ?< ' ?!'); =8 E@ !#8 4 %B '
& ;8 ' ?!' =A#?C= ' 8B ' !?;' #B ' #>< 4 %B '
0?; ' ?! ' ?;' B ' 88 ' !?;' #B ' 0 = ' ?!' (DC8 =

$?;' #B ' B>; ' ?!' ?FDC;AB

%B ' ;NC ' ?!' +?EA8 4 #B ' & ;8 ' ?!' 0?#B =4
%B ' & ;8 ' ?!' % ;; 4 %B ' 0?; ' ED?##8 4 %B '
0?; ' J DC;AB4 %B ' 0?; ' C#B ;!?; 4 (;' J?B='
88' ?!' #B # *8"'4 (;' 2 88 <' 1 ;' ?!'); =9'
B 4 (; 2 ' <' &88 ?#' ?!' (#?D 4 (;!!; =@ ' (@?##
?!' %B ;8 # = 4 (;' 2 88 <' == # ?!');CDD #4
(;' J?B=' (@?# ?!' =@;C<4 (;' ?D ;#' / ; =A8 ' ?!'
(# #@B 88' Q B ' 8 # ?=' (;' 2 88 <' +?CA8 ' ?!'
; 4 (;' 2 88 <' (@?# 8 ;' = ' >?C=A ;' ?!'
; =4 (;' J < ' +?=' ?!' E#?C= 4 %B ' 0 ; '
?!'& = <4 %B ' 0 ; ' ?!' @" ;!#?C= ' 8 ;' %B '
0 ; ' ?!' 0 ##8 =4 (;' / #; @"' (@?# >?C=A ;' ?!'
=@;C<4 %B ' 0 ; ' ?!' ?= DC;AB4 1 ;
?!' ; 4 %B ' 0 ; ' ?!' & A ; #?C= 4 %B ' 0 ; '
0?!' B ##?4 = ; E' / ; =A8 ' ?!' 8 !#?C= 4
1 ;' ?!' !!;?A =4 1 ;' ?!'); =4
1 ;' ?!' B ;; #; 4 J?B=' (@?# ?!' 2 884 2 88 <'
(@?# >?C=A ;' ?!' %B ;8 # = 4 (@?# ?!' 9'
B E' 8 ;4 2 8B <' (@?## ?!' DC< 4 ?D ;#'
(@?## ?!' &88 #?C= 4) ?=' (@?# ?!' '## ; 4
?D ;#' &88 ?#' ?!' 8 < 8= 4 2 88 <' &88 ?#' ?!'
E8 4 (< ?=' &88 ?#' ?!' (E = 4 J?B=' &8B?#' ?!'
%B?;8 B?K 4 ;>' &88 ?#' ?!' ;;?#4 J < ' +?='
?!' (< 'C<4 8 F = ;' +?=' ?!' C#B ;!??; 4 / #L
; @"' +?=' ?!' ## =DC;=4 !!; =@ ')8 # = ' ?!'
2 B>#' 8 E4 !!; =@ ' C= =AB < ' ?!' ?;#B >=9'
#?C= 4 !!; =@ ' ;< #; =A' ?!' 2 B>#' B CAB4
(@?## ?!' 2 B # 8 4 %B?< ' C#B ;!??; ' ?!' 1=?E9'
?C#B4 %B?< ' C#B ;!??; ' ?!' 2 88 4
C#B ;!??; ' >?C=A ;' ?!' !! <#?C= 4 8 9
DC;#?= ' >?C=A ;' ?!' C ; B?C! 8 E4 B ;8 ' C;L
; >' ?!' =4 0 =A8 = ' ?!' #B # *8"'4 ?L
D ;# (@?# ?!' ?; 8 B 884 2 88 <' &<!8 ' ?!' 8 @"9'
8C884 / ; =A8 ' >?C=A ;' ?!' C@"B < 4 8 FL
= ;' 0 #BA?E' ?!' *J;>A; =A 4 = ; E' /8C<D ;'
8 ;' ?!' 8 !# 4 %B ' K;? ? # ?!' J DC;AB' !?;'
#B ' #>< ' %B ' +C#@B ' ?!' C@"@8 CAB ' >88 ' !?;'
#B ' #>< ' %B ' & ;8 ' ?!' ?FDC;AB ' B <D ;8 =

!?;' #B ' #>< ' %B ' ;NC ' ?!' +?CA8 ' >88 ' !?;'
#B ' #>< ' %B ' & ;8 ' ?!' =A#?C= ' >88 ' ^D!'
8;?! ' !?;' #B ' #>< 4 2 88 <' == # >?C=A ;' ?!'
);CD #4 (@?# ?!' B E' >?C=A 7 4 J 0=
(@?## ?!' (@B 8 E?? 4 2 88 <' /8C<D ;' >?N<A ;'
?!' 8 # 4 2 8# ;' (@?# ?!')?C 8 = 4 68 ?D ;#
(@?# ?!' 8 @"4 1 ;;' ?!' DD?# ;C8 4 0
8 ' >?C=A ;' ?!' ?C88 Z

$?;' #B ' B ; ' ?!' (8" ;"'

%B ' & ;8 ' ?!' % ;; 4 %B ' 0 ; ' ?!' + ;#'
(;' $; =@ ' (@?# ?!' %B ;8 # = 4 % < 8 ' J*1 ' ?!'
/B 8 KB CAB' ?= ' ?!' #B ' (= #?; ' ?!' #= ' ?' A '
?!' JC # @ 4 %B?< ' (@?# ?!' 2 B # 8 4 CAB' (@?#
?!') ' B 88 4 J?8 =' (@?## ?!' (C #?C= 4 (;' 2 8L
8 <' (@?## 8 ;' = ' >?C=A ;' ?!' ; =4 ?D ;#'
(@?## ?!' &88 !#?C= 4 J?B=' (@?## '&8 ;' = '>?C=A ;'
?!') '8< = @8 CAB4 %B?< ' Q 2 8# ;' (@?## ' ?!'
%? ; A4 J < ' / ; =A8 '?!' %?;E?? 8 4 J < ' C;L
; >' ?!' + E@B ;4 J?B=' 88' ?!' >= =A4 =L
; E' = ' 2 88 <' /8C<D ; ' ?!' 8 !# 4 / #L
; @"' 88' ?!' * ?C 8 4 <' (@?# ?!' ?EB '4
2 88 <' (@?# ?!' ; < ?E 4 2 ' <' C;; ;'
?!' ?E =4 J?B=' (#? B ;# ?!' 2 8 <B?K 4 !
%B?< ' 0?E '?!' /8?; 4 J?B=' >' ?!' > #?C= 4
J < ' C;; >' ?!' (C= B?K4 %B ' +C#@B ' ?!' C@"L
@8 CAB ' D 88 ' !?;' #B ' #>< 4 * *@B 8 = ?= ' ?!'
%C B 8 E4 %B ' #C#?;' ?!' 2 B # D ="

$?;' #B ' B ; ' ?!' / D8

%B ' +C" ' ?!' 3C =!D ;; 4 %B ' & ;8 ' ?!' B8?;9'
#?C= ' 0?; ' 2 88 <' +?CA8 4 0 # ==!) = ; 86'
+?CA8 4 2 88 <' >' ?!' +;C<< 8A ;4 (;' ;@BL
D 8 ' C;; >' ?!' 8 @"D ;;?= 4 (;' + ' * C;; >'
?!' (# =B?K 4 2 88 <' ?; ?= ' ?!' /; #?=A; =A 4
J?B=' #@B' ?!' + E @"'4 J < ' < #B' ?!' /?! ?4
J?B=' >' ?!' > #?C= 4 + @"!?=' ?!' ;9
#; ' J?B=' + @"!?= ' ?!' 2 B #!8 4 C=# ;
?!' /?8<C 4 / #; @"' /?;# ?C ' ?!' 8"!8 E'
>?C=A ;4 J?B=' 0 E ?=' ?!' 1 <<C ; 4 J < '
) ' ?!' 1 ;"C; 4 ;?C= ' ?!' (@?# #?C= 4
8 F = ;' C;; >' ?!' 88<>; 4 @B ; ' C;; >'
?!' (K ##8 B CAB4 J?B=' #;; >' ?!' ; =A8 #>4
); B < ' ?!' (8 KK ;! 8 4 C! 88' ?!' 1 =A9
4 +?@#?;' / == @C " ' ?!' ?< ==?4) ?;A '
>88 ' ?!' * * = ;B 884 J?B=' 8!?C; ' ?!' 1 8A 4
2 88 <' = ' 8 F = ;' ?; DC;AB ' 8 ;' = '
>?C=A ;4 J < ' 2 ' <!?= '?!' ; ;?==?4 ?D ;#'
C;= #' ?!' 0 ##8 ' ;< #?C= 4 + ' /8 = ;8 #B'
?!' 8>#B4 8 F = ;' 88 ' ?!' 8 = 4 8 F = ;'
< 8#?C=' ?!' ?8 @? #4 %B ' /;? ? # ?!' / D8 '
!?;' #B ' #><

$?;' #B ' B ; ' ?!' 0 = ;"

2 88 <' +C" ' ?!' < 8#?C= 4 J < ' J ;NC ' ?!'
+?CA8 4 J < ' & 8 ' ?!' ;; =4 ;@BDC8 ' & ;8 '
?!' !!?;! ;4 8 F = ;' 0?; ' 8 =#>; 4 J?B=' 0?; '
;< @B 84 (;' + = 8' ;< @B 8' ?!' * * C8 !8 4
%B ' 0 ; ' ?!' 0 < =A#?C= 4 J?B=' 2 ;' ?!' EL
3"87-' !-^275-+' -%%%#%-,' "6' 8!3-+2!!",' !-^@

2 88 <' C= =AB < '?!' K; =A#?C= 4 %B '0 ; '
' / ; #?= ' 8 ;' = ' >?C=A ;' %B ' 0 ; ' ?!'
C=# ;!#?C= ' C= =AB < '?!' @" #
<D8 ' ?!' C@BE?? ' %B ' 0 ; ' ?!' 0 >8 = '
< 8#?='?!') ; =A 4 ?;' CAB' C=9'
=4 %B '0 ; '?!' / =# =@;?!# 8 ;' = '>?C=A ;'
CAB' (# = ?= '?!' ?C=#A; = = '
; =!?; '?!' ; C!?; 8 = ' ;@BD 8 ' + @" ?= '
?!'%?C;!8 = 4 (;' 2 88 <' C= =AB < '?!' C= =A9'
B < B ' #; "4 %B ' & ;8 '?!' ! '8' %B '
0?; ' ;A =>4 %B '0 ; '?!' ;8 #?= 4
C ; '?!' C@B = ; = 4 %B '0 ; '?!' 8# ; = '
8 ;' = '>?C=A ' + ' C= =AB < '?!' 8= 9'
@; A' %B ' & ;8 '?!' 1 8< ;=?@"4 %B '0 ; '?!'
%;?@B; A'%B '0?; ' ?> 4%B?< '1 == >'?!' ;L
< @B 84 %B '0 ; '?!'1 ; 4 %B '0 ; '?!' 8 @"9'
EB ' %B '0 ; '?!'0&=# ;" = 4 J < ' 2 B>#9'
!??; '?!' +C= C! ' ' B ' B 8< ;'?!' (E@B; 4
CAB'1 == >'?!' (B 88?@B4 J < ' ?? ''?!' ?=#9'
AC<; !?=4 %B '0 ; '?!') ; =' >=
?!' 8 ;!#?C= ' 1 == '?!
1 88 =A 4 8 F = ;' (B E' ?!' #B ;') ;C<< #4
%B '0 ; '?!' 1=?" ?8 = 4 J?B='!! ;AC ?= '
?!' ;@8 = @B =4 %B '& ;8 '?!' +C= ?= 8 'D >' '
!?;'#B '#>< 4 %B '& ;8 '?!'0?C = ' 88 '!?;'#B '
#>< ' ?=#A?<; '?!' ;??<8 = ' 8 ;
= ' >?C=A ;4 <' ! !C88 ;#?=' ?!' ;# =B?8<
C= =AB < '?!' 8 = 4 %B '0 ; '?!'
); =?@"' 8 ;' = ' >?C=A ;4 %B '0 ; '?!') 89'
< ; @;?!#' %B '0 ; '?!' +C=8?K ' ' '
1 ;'?!' 1 ; 8 = ' C= =AB < '?!' B ;; 9
8 = 'K; =#K;? ? # ?!'*; = ' = '
;?C= '?!' A ;B?8<

$?;'#B ' B>; '?!' +C<D ;#?='

%B '& ;8 '?!' ;A>8 4 %B '0?; ' ?> 4 († C<94
KB; >' ?8NCB?C= '?!' 0C 4 2 88 <' ?@B; ='?!'
1 8< ;?=?@"4 2 8' <' < 8#?=' ?!' ;D #?C= 4
J?B=' 2 B>#B 88' ?!' 1 K?@"' ;@BD 8 ' / 88 ' ?!'
; =@ K8 4 %B '0 ; '?!' 1 'D ;= 4 J?B=' K ;'
?!' & 8< B E4 2 88 <' ?D8 '?!' !! ;< ' 8 ;'
= '>?C=A ;4 J?B='+?EA8 '?!' >= ' 2 ' <'
?8NCB?C= '?!') !@ = 4 J?B=' <KD 88' K# ='
?!' ;; @"4 J < ' < 8#?= '?!' C#@B ?= 4 @?88'
C=# ='?!' ; ?@B' 8 C ' < 8#?='?!' ;= 4
2 88 <' (# ;8 =A'?!'0 E4) ; B? ; '?!
) ; B? ; 4 J?B=' ?E #?= ' >?C=A ;' ?!' #B # *8"4
2 88 <' ?8NCB?C= '?!' ; A#?C= 4 %B '0 ; '?!'
% ;8 = ' C@B = ='?!' +;C<B ' * %
J < ' (<?88 # ?!' ?=B 88' J?B=' ?8NCB?C='?!'
<88;? = 4 J?B=' < @B 8' B <D ;8 = ' #?'
#B '& ;8 '?!' 2 A#?C= '%B '0 ; '?!' (B ; 4 ;'
%B ' 88 ' #?' #B ' * * ;NC '?!' ?=#;?! 4 J?B='
?8NCB?C= '?!'1 8< = 'J?B=' (K; C ''?!' 8= 9'
#?C= 4 J?B=' ?8NCB?C= '?!') ;!8; "

$?;'#B ' B ; '?!' C#

%B ' +C" '?!' < 8#?C= '?;' B 'D 88 ' =' ;; ='
%B '& ;8 '?!' ;; =4 %B '& ;8 '?!' ;A>8 '%B '
& ;8 '?!'&A8 =A#?C= 4 %B '0?; ' ?=#A?<; 4 %B

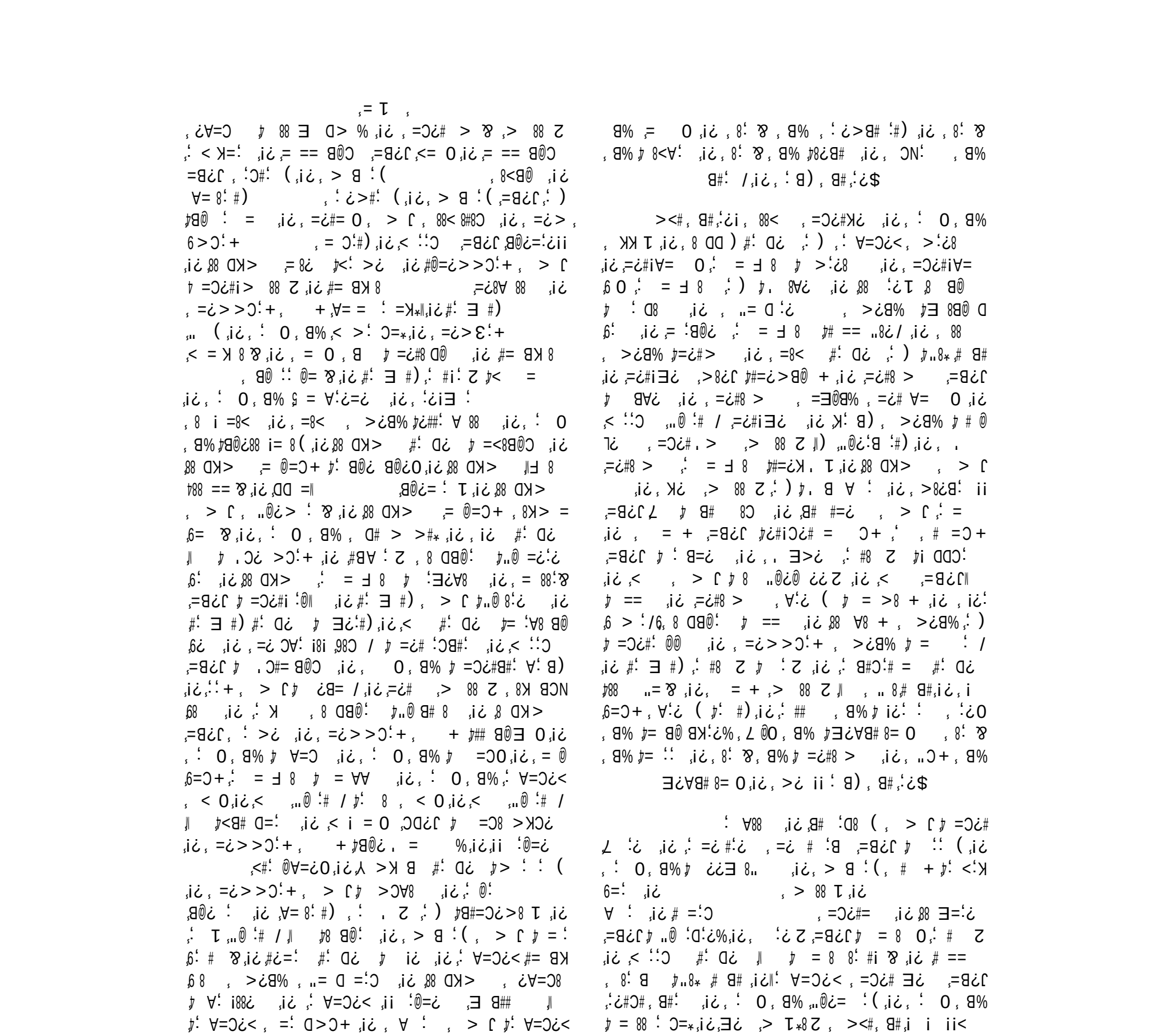
0 ; '?!' (" B=?;8 ' (;' J < ' (# E ;#' ?!' C# 4
+ ' ?>8 '?!'1 8DC;= ' ?D ;#' (# E ;# L
?@ # ' C=@8 '#?' (J < ' (# E ;#'?!' C# ' @#?;'
== #>= '?!'1 >< ' J?B=' (# E ;#'?!' !@?A 4
2 8 <' (# E ;#'?!' <D; <?; 4 J?B=' (# E ;#
?!' 0 =@B 84 ;@BD 8 ' (# E ;#'?!' 1 EB =B"4
= =' (# E ;#'?!' 0 ;A W =4 J?B=' (# E ;#'?!'
(@ K 4 J?B=' H' ; >'?!' 1 ;; < =?@B' J < '
@?==?@B '?!' <D; D A 4 = =' == #>= '?!'
1 ;; 8 <?=# +C=@ =' <KD 88'?!' 2 # ;" = 4
J?B=' <KD 88' K# ='?!' +C=??= 4 +?= 8 '
<KD 88'?!' @B =E ' =A' @C< = '?!
0 = EB ' = 4 ?D ;#'(# E ;#'?!' "=?@B' ?D ;#
(# E ;#'?!' 0?@B8 4 %B 'K;? ? # ?!' ?#B >'!?;'
#B '#><

$?;'#B ' B ; !! ?<'?!' =!; E'

%B '& ;8 '?!')8 =@ < 4 %B '& ;8 '?!' &A8 =A9'
#?C= '%B '0?; ' ?=#A?<; 4 %B '0?; ' ?! 4
%B '0?; ' 8 =#>; 4 (;' / #; @"' ?E!#?C= '?!'
#B # *8"4 = 'J?B=' ?E #?= '>?C=A ;'#B ; ?!' (;'
J < ' ?=#A?<; '?!' (" 8<?;8>4 (;' J?B=' FL
E 88' ?!' #B ;K?88?@"4 (;' ;@BD 8 ' (# E ;#'?!'
8 @"D 88' %B '0 ; ' ?!'); =?@"' 8 ;' = '
>?C=A ;' %B '0 ; '?!' EE ;" 4 %B '0 ; '?!'
! DC;= ' 8 ;' = '>?C=A ;' %B '0 ; '?!' ;;?9'
@B = 4 J?B=' < 8#?C= '?!' ;; 4 2 88 <' C=L
=AB < '?!' ; A = 4 %B '0 ; '?!'J?B= #?C= 4
) =' ?@B; ='?!' ; A<C; 4 J < ' ?@B; = '?!'
C@B =; @B' J?B=' 8 E 88' ?!'#B #*8"4 %B '0 ; '
?!') 8 = ;!8?C= 4%B '0 ; '?!'* 8!#?C=8> 4 J?B='
/?'?@"' ?!' !! 8 > 4 ?D ;#' /?'?@"' ?!' #B #*8"4
J?B=' 0 @" '?!' E8 = 4 %B '0 ; '?!' ?C!B 88'
%B '0 ; '?!' *!C8D ;4 + '/?88?@"' ?!' * *8= 9'
DC;= 4 ?8 =' <KD 88' ?!' 8>#BE?? 4 ?= '?!'#B '
>88 '?!'/ !8 >'!?;'#B '#>< ' %B '0 ; '?!' ;L
D #?C= 4 J?B=' FE 88' ?!' + ;A 88' >?C=A ;4
J?B=' ?@B; ='?!' !! ;AC!8 4 2 88 <' ?@B; = '
B <D ;8 = ' #?' #B '& ;8 '?!' +C= ?= 8 4 J?B='
(B E'?!' ;A ;; = '>?C=A ;4 8 C ' 8 F = ;'?!'
E#?=4 0 E; =@ ' ; C!C; '?!'J?; ?=B '4) ?;A '
C#@B !?= '?!' (@?# #?C= 4 %B '0 ; '?!' 8 ;4 %B '
0 ; '?!' B?K#?C= ' 8 ;' = '>?C=A ;4 J < '
== #>= '?!'1 88 ' ;@BD 8 ' ; E!?; '?!' C@B9'
== < 4 8 F = ;' /?;# ;! 8 ' ?!' !!C'E?? 4
* #B E' (# E ;#' =' * * ;=

$?;'#B ' (B ; !! ?<'?!' (# ;8 =!!

%B ' +C" '?!' < 8#?= 4 %B '& ;8 '?!' ;A>8 4
%B '& ;8 '?!' 88 = ;' %B '0?; '&8KB =A #?C= '
%B '0?; ' ; ;?! 4 %B '0 ; '?!' /?8< 4 (;'
8 F = ;' ?K '?!' 1 ;! 4 8 F * *?=;?'?!' ;9'
@;?!#' J < ' 0 =A!#?C= '?!' 2 # ;NC ;# ;' (;'
8 F = ;' 0 =A!#?C= '?!')8 =#;; =4) ?;A '
(# ;D=A'?!' ;D ;# B>; ' ?88?'?!'/?E9
B?C! ' %B '0 ; '?!') ;A?= @"' 2 88 <' C= =AL
B < '?!' ?NCB = '>?C=A ;4 8 F = ;' K ;'?!'
C8@; C@B4 J?B='&; " = '?!' 8A?=>' *8 ;>' ?'?'
?!' 2?? 4 2 88 <'0 =A!#?C= '?!') ; => ; '
2 8# ;' =" = '?!' ;@B ; B 4 J?B=' C= =A9



US

<KD 88 ?! 1 8?@8 4 ?88?= 88 J < =A ?!
C8 ; <KD 88 ?! % E% ; @D
(# E ;# ?! (# =#?C= 4 * 0 ?= ; ?D ;# ?= ?!
(#; 8?@8 ;= ?! (@" =
8= ?! 1 ;"8 = 4 8 F = ; <KD 88 ?! 89
A ;#D D?; (; + 1 =8?@ ?! #8 # *8"4 =;>
(< #B ?! <;? ;= ?! 1 ;"8 884 %B
0 ; ?! *#< 4 2 88 < = ; ?= ?! 889
> ; <KD 88 ?! ;C= =4 J < ?CK ;
?! 0 ##8 D8 ; %B 0 ; ?! ; D8 ; >?C=A ;4
?8 = <KD8 ?! ;NCB =4 J?B= + ;C< <?= ?!
8 ; 8 ;?! / ## = ; @B4 2 88 <
(# E ;# ?! 88 !!>! ?! + ;?=
(#; B = ?!) 8?!) ; >?! 1 ;"
) ; >?! C8W ?= <KD 88 ?! / @;@ >
!!?;; # ;?! 1= K !!?;; # ;?!
8= B 884 S M / 8 KB =# ?! 8 BD ==>
8 ;?! 88<>88 A 8 ?!
% <K8 8 CAB %B >88 = B <D ;8 = ?!
<KD 88 !?; #B #>< 4 + < >?!
C ;#8>4 %B * ;@K ?! * ?=# ? B D 88
= B <D ;8 = !?; #B #>< 4 %B ?C=# ?!
2 >< D >88 !?; #B #>< 4 J?B= *" #?= ?!
?E = B <D ;8 = #?#B 0 > 8 4 ?D ;#
= @ ?! ??; %8 & ;8 ?! ?;#B " B <L
D ;8 = !?; #B #>< 4 %B B <D ;8 = ?; ! @#?;
!?; #B &88 # ?! 1 =@ ; = !?; #B #>< J <
+ ;C< <?= B <D ;8 = #? #B & ;8 ?! * ;#B
<KD 88 ?! + ;C< ! 8

$?; #8 (B@; 8$?< ?! 1 =@ ; =
%B & ;8 ?! * ; B 88 %B & ;8 ?! (?C#8 "
%B @?C=# ?! ;DC#B= #4 %B 0?; 1 #8`4 JB
*<; 8" ;#?C=?4 J < !! 8@?= ; ?! /B ! ?
?= ?!#B = #?; ?!#B ?88 A ?!JC # @ 4 (;
%B?< C;= # ?! 0 > 4 (; B ;8 < >?!
(; 8 F = ; ; 8 ?= ; ?!) 8 =! =K B ;4
%B 0 ; ?! 0 C; #?C<4 (; + ;= A @ ?!
/ ## ;;?4 8 F = ; ;DC#B= # ?! 1=?F (; 8 FL
= ; == ;< = ?! &8 @"4 *(/ ?D ;# C;= # ?!
)8 =D ; X4 2 88 < C;= # ?! 8!?C; J <
(@?## ?! =B?B= J?B= ";DC#B= # ?! !8 J?B=
(@?## ?! ?< #?C= J < C;= # ?! 88 A > = 4
;@C8 (@?## ?! ?< !#?C= 8 F = ; C;= #
?! ?=D? ?4 ?(* ?D ;# ?! 8= " ##8 4 J?B=
+?EA8 ?! % 88 EB 88 4 J < ?A ?! 8 ; >=
?D ;# < " B =" ?! = B@< * P J <
%B?< ?= ?! ; C#B 4 J?B= ;DC#B= # ?! 1 #@;9
8 = 4 J < !!?;D ?! %B?;= #?E= 4 %B 0 ; ?!
88A; =4) ?;A 1 #B ?! 2 B>#; A 4 J?B= C;L
= # ?! + 88 %B & ;8 ?! / =<C ; D >88 !?;
#B #><

$?; #B B ; !! ?< ?! D ; = 4
%B & ;8 ?! &;;?884 %B & ;8 ?! ; B 884 %B
0?; 1 #B %B & ;8 ?! / =<C ; 4 %B & ;8 ?!
1 =#?; %B * ?; = ;C; > %B & ;8 ?! D ;9
= %B 8 <8 !%?;D@(4 # ; ?! !!?;D 4 %B
0?; (8#?C= 4 %B * # ; ?! (8#?C= 4 %B 0?;
!!; W ; %B * ?; / # 8 A?4 %B < # ; ?! / # 8 A?

(; 8 F = ; (#?= ?! / #< = (; 8 F = ;
!!?;D ?! %?8NCB?=4 ;#B?C; !!?;D ?! C D =9
#? 8 D ;@BD 8 !!?;D ?! 1 88 4 (;) ?;A
) ?; ?= ?! & =A8 ! 4 (; J <) ?; ?= ?!
0 ! <? ;4 J?B=) ?; ?= >?C=A ; ?! !! @B 884 8 FL
= ;) ?; ?= %C#?; ?! / #8C;A4 (; J?B= !!?;D
?! ; A ; 2 88 < !!?;D >?C=A ; #B ; ?!4
8 F = ; = ?! #B # *8"4 J?B= = >?C=A ;
#B ; ?! / #; @" +C= ?! % ;# 4 %B 0 ; ?!
!!? ; = 8 ; %B 0 ; ?! !!D ; = >?C=A ;
%B 0 ; ?! 2 8 >#B CAB 8 F = ; C< =A
>?C=A ; ?! C8# ;4 %B 0 ; ?! +>@ 8 ; %B
* ; ?! +>@ >?C=A ;4 * J <) ; >?! 89
A?E=>4 J?B= &8KB =A #?C= >?C=A ; ?!) 8 " (;
%B?< C;= # ?! 0 > 4 = ; E !!; W ; B ; !!
K # ?! B@; =4 2 88 < &8KB =A #?C= ?!
88 D@A J?B= 0C< ! = ?! ;= 4 !!; =@
?! 8 ; ?! C@B8?! @=4 ?D ;# ?! >?C=A ;
#B ; ?!4 J?B=) ?; ?= ?! ; @B8>4 %B 0 ; ?!
& # >?C=A ; 88 < * 8 ;C< ?! ##?= %B
* ; ?! C 8 # ; 88?= 8 F7 C< =A ?! ; <?= 4
?D ;# C< =A ?! ;= 4 B ;8 !! ;NCB ;!?=
?! ? C #; %B 0 ; ?! 88?A 8 ; %B
0 ; ?! 88?A >?C=A ;4 ;#BC; !!?;D ?! ?(9
= 4 88 < !!?;D ?! = ? 8 / #; @"
?! *8 =AB#?C= 4 8 F * C< ! = ?! C 8<@>4
*T #; @" !!? B@ ?! !!?C8 / #; @" *== ?! % 88 9
!?E ; J?B= !! ;NCB ; ?= ?! !!?;#; 4 %B?< !!; L
W ; ?! ;=DC8A %8 0 ; ?! 0 !8 4 %B * T
?! * # ;#?C= 4 J?B=) ?; ?= ?! 8 8 @"4 J <
!!?;D ?! %B?;= #?C= 4 * / ?D ;# *; = ?! C8# 4
8 F = ; *; = ?! * *C;#D 884 *(/ ?D ;# *== ?!
8 ;#?C= 4 J < * ? ; ?! (#?= E?? 4 *(/ J <
1 #B ?! =NCB?;!8 ?D ;# C;= # ?! &8 "4
) ?;A / #?C ?!); = D?< 4 *(7 J < (= 9
8 = ?! ; D #?C=@4 *(/ / #; @" (= 8 = ?!
?##?=4 J?B= 1 #B ?!) 8 A?E =
>?C A@; ?! 1 <=CF 4 3C ;# ;< !8 ; ; A?4
2 ' < !!?;D ?! %C88? 4 %B 0 ; ?! (#; @8 =4
J < !!?;D ?! / ##= @ 8 4 (; B ;8 J(* #8 =
?! / ## B 4 ;#BC; !!?;D ?! ;CF4) ?;A) 9
; ?@B >?C=A ; ?! 1 = # ; 8 F = ;) ; ?@8 ?!
% 88 @D #8 4) ?;A) ?; ?= ?! ?#B=> 2 ' <
! ' ;D@ ?! E4 *(7 J < &8KB =A #?C= ?! 0?A 4
/ #; @" 0 !8 ?! 1 =@; A 4 * / 88 < !!?;D ?!
<K! 8 4 J?B= !!?;D ? >?C=A ; ?! 88!8C A 4
P7 !!?;D ?! = 8 > (; 8 F = ; C;= # ?!
; A<>884 J?B= = ?! E#>884 2 ' < C<L
=A ?! C@B; >4 %B 0 ; ?! J ?= <C!" 8 ;4
%8 0 ; ?! ?= <C!" >?C=A ;4 *(7 J?B=
?! ;;) ?;A 1 #B ?! ; @8 4 8 F = ;
!!?;D ?! 8 @"#?C=) ?;A ?; ?=@?! ?A= 4
%8 0 ; ?! 1 == >4 2 88 j !!?;D ?! ! 8?C=
;#BC; !!?;D ?! 8NC8 => (; =;>) C#B;
?! 1 =A9& E ; J?B=) C#B; ?! # @#?C=
J?B= !!?;D ?! C@B =5 8 F = ; !!?;D ?! *=9
@;= @B @ B 8< ; ?! ==@ ; A J?B=
(< #B ?! *== ;; < >4 8 F = ; = ; ?= ?!
?C;# ?D ;# (<K ?= ?! %B?;= #?C= 4 J <
8 1 8< ; ?! 88D #8 =@4 J < 1 #B ?! % ' 8 9

' *=B

A?= 1 #B >?C=A ;#B ; ?! J?B= N! ?! ? B 88 J < O !8> ?! C@B =!#?C= 8 F = ;! !?;D ?! (?@" ?D ;# !/?;D ?! / ## =# A ;# J?B=) ?; ?= ?! #B ;(8C ; >88 2 # ?= ?! / ## ;B % B 8 !# D >88 ?! E D ; =! !?;#B #>< D =A #B 8 !# D >' ?! 1 =#?; % B 8 !# D >88 ?! *= ;C;> % B 8 !# D >88 ?! D ; =! !?;#B #>< D =A 0 ; ?! C@B ## =(;2 88 < 1 #B ?! OC NCB ;= % B 0 ; ?! (" = =;> &8KB =A #?C= ?! 8A < 8 F = ; C< =A 8 ;?! C8# ;!!; W ; >?C=A ;?! %>; *; = ?! ;# <!??; (;) ?;A (" = ?! !! =#; P 8 F 4= ; ?= ?! E#?C= J < !8 = ?! 8 < ?! (>?C=A ;?! ?! B 88 %B?< C;= # ?! 8 ; #) ?;A 2 8!?= ?! ! =A @B) = C< =A ?! & =<?C#B 8 F = ; 1 ; ?! C J?B= C< =A >?C=A ?! @8 ; > %B?; ?! C ; 8" J <) ?; ?= ?! (#?= 2 88 < J?B= #?C= ?! ; A C;= # ?! <K! 8 1 #B ?! 8 @B; @B @@ ;#?! < A (; / #; @" A 8 ?! ?>= !!?;D ?! C@B; 2 8# ;?D ;# ?= "6 1 ;" #?C= ?! + !!# =) ?; ?= "6 A #; #B !# ;NCB ; ?= ?! ! =A?= O?A ?! ? ?< @B ?! ; <8 / #; @" !!?;D >?C=A ;?! C88NCB K %B?< *== 88 #?# #B & ;8 ?! / =<C ;

$?;#B (B>; ?! *=C ;=

%B O?; + ?##= % B O?; O?> ## %B O ; ?!) ; =# %B O ; ?! =?B %B O ; ?! "/8 ? % B O ; ?! ; % B * ; ?! 1 8@ ?@") ; A?;>) ; =# ?!) ;# =<?; J <) ; =# ?! 8C; 8@?< !#; W !?! C8 C@B 88 2 88 < !!; W ;?!&;@B ##J?B=) ; =# ?! ?;; <?= CAB !!; W ;?! 88 ;C< J < !!; W ;?! 8 @" CAB !!; W ;?! CAB !!; W ;?! %B O ; ?! C8? CAB !!; W ;?! + 8 &AB + ?= 8 =?B ?! 1> 88@B !!; W ;?! 88 = ?C= + / ?8!?= ?! =?B ?! 2 88 < ?D ;# ?= ?! *=@B ?! ?! ?! ?8< 4 8 F >88 ?! + @B!?C; >88 6 +C= >= J?B= @" 8 = ?! + @BA ;; ?@B %B O ; ? ! (#>" B = ?D ;# (B E K?;# ?= ;?! O > 5 2 88 < 8=#? B ?! / #; @") ; =# ?! %C88?@BA?; <J?B=) ; =# ?! / ;) ?;A C#BD ;# ?! #8 B 88 %B O ; ?!) ; =# B <D ;8 = ?! ;NCB ;# CAB >88 ?! 1>= <> ' ?! C; #?C= 2 88 < =#? B ?! 8 F = ; ?! ?! 8

$?;#B (B ; !! ?< ?! < ! ; CAB <KD 88 ?! 8 ; 8 F 8 ; +C<D ; ?! ? #B7 %B O ; ?! 1 ; @" %B O ; ?! O #B = %B O ; ?! ?>= %B O ; ?! 8 8 F 7 >?! 1=?@" @ = > ;@BD 8 <KD 88 ?! #@ !#8 J?B= (C#B ;8 = ?!) ; =B 88 %B O ; ?! ;? 8 >4 J?B= >?! ; @B< =>4 %B O ; ?! O?@B8?> %B O ; ?! C ' ? =4 CAB + 88 ?! C #

$?;#B (B ; !! ?< ?! ;?< ;#) ?;A @?C=# ?! % ;D # 1 == #B % =W ?! ;?< ;# (;) ?;A 1 =W ?! ?! B CAB 8 F = ; ;NCB ;# ?! EB 88 = J?B= ;9 NCB ;# ! ;#B ; ?! B ?=4) ?;A + 88 ?! (=# B8 ;# = = B J < + 88 >?C=A ;#B ; ?! B ?= 4 2 88 < ;NCB ;# ?! ; 8 =AE 88 8 F 8?= ?! +C= " #B4 = ; E !!; W ;?! = = 4 J < !!; W ;?! ; 4 =) ?;A + 88 ?!)8 =9 C;NCB #

$?;#B B>; ?! A>8

;@BD 8 & ;8 ?! ;A>8 4 J?B= & ;8 ?! ; 9 8D = O?; 8 <KD 88 (; CAB <KD 88 ?! 8 ;4 8 F = ; <KD 88 ! ;?! 8 ; 8 FL = ; <KD 88 ?! O?@B= 88 ; BD 8 <KD 88 ?! *= ;; E4 J?B= <KD 88 ?! ; 4 88 <KL D 88 %C#?;?! +C= # != A 4 J?B= <KD 88 ?! ; @8 ##?=4 8 F = ; <KD 88 ?! ; @B 8# = 4 %B 88 ?! C@"@ ;= 4 J?B= <KD 88 ?! 1 ;"#?C= 4 +?CA ' <KD 88 ?! 8 = 8= ; @8 4 (; +C=@ = <KD 88 ?! C@8 =D; @" %B O ; ?! ;B; @"4 %B O ; ?! +C=#;?= 4 =AC <KL D 88 ?! 1>88D ;; 4 2 8# ; <KD 88 ?! (" K= 8 4 ?8 = <KD 88 ?! 8>#B E?? 4 / #; @" <KD 88 >88 #?# #B O ; ?! C@B =D; @"4 ;@BD 8 T9 O CAB8 = ?! ; A =# ; 4 8 F = ; <KD 88 ?! 1 88< ;# = 4 %B %C#?;?! *= ;8 ;4 ?8 = <KD 88 ?!)8 = = 4 %B K# = ?! ; A= B4 ;;?= NC ;"@? 8 4 (; ?8 = <KD 88 ?! ; " =A8 4 %B O ?! O ?=#4 %B O ; ?! O CAB8 = 4 %B O ; ?! (#; NT4 %B O ; ?! &' KA; A >?C=A ;?! %B K# =?! ;; "" %B O ; ?! ;;4 %B K# = ?! +C=??= 4 %B O ; ?!)8 = ;? 88 +?= 8 &E =A?! ;= @ 4 +C=@ = <KD 88 ?!)8 =@ ; '4 %B > ' = B <D ;8 = ?! 1 =#>; 4 ;@BD 8 <KD 88 ?! @B#?<?; 4 ;@DD 8 <KD 88 B <D ;8 = ?! 4 +?= 8 <KD 88 ?! 8= D 4 +?= 8 <KL D 88 ?! ;B C 8 =A4 ?8 = <KD 88 >?C=A ;?! ; =# = 4 +C @ = <KD 88 ! ;?! 8 ; =# D ;#4 %B B >88>?! ?8 = >4 %B D >88 ?! JC; 4 % ; & ;8 ?! O C ; 8 > ' !?;#B #>< %B K;? ? #?! 1 8<C= 4

$?;#B (B ; !! ?< ?! $>!) ?;A & ;8 ?! 8 '8 O?; (@; # ;>4 2 88 < & ;8 ?! ; C!?; J < & ;8 ?! ?;#?C= %B & ;8 ?! O =4 ?8 = & ;8 ?! 8@ ;; %B O?; C<> 8 F = ;O?; #B ?D ;# O?; ?8 '4 %B O?; E ;" 4 ?D ;# # ;?! C;AB8 4 (B7) ?;A <KD ' ?! ! =?@" JC L # @ 8 ;" ?; > 88 4 J < 8 ' ?! ! =9 A; >5 8 F = ; +C; < ?! * ;A?E4 (; 8 FL = ; &; " = ?! <D?4 ?D ;# !#D#B ; =AB < ?! O B 88 #B = 8 (K =@ ?! O #B 88 = 4 J?B= <?# ?! 8@?;<?# (; 2 ' < = #; ;#B ; >?! ?! #B # " ?= ?! #B = #?; ?! #B ?88 A ?!

- , , ?D ;# 0 ;<?=# ?i' 8@?< ∉ 8 FP#
< 8#?= ' ?i' 1 =" 88∉ P 8 F = '; ;:?@"' ?i'
i = ?= 8# ?=# #B'?i' = i?; ∉ +
?C=A' ?i' 1 ;"#?C= ∉ 8 F = '; ;= ' ?i' (=9'
i ?; ∉ / # '; >' ?i' CA8 #?C= ∉ + , 8i?C; '
?i') ; =A ∉ (';J?B=' >#?C= ' ?i'#B *8"' ('; ;@B9'
D 8 ' ?K ' ?i' =" 88 '; ?= ' ?i'#B ' = #?; ' ?i'#B '
?88 A '?i'JC # @ ∉ (';J ∠ '* @A 88 ?i' 88 =" 89'
8 ;∉ / #; @"' ;C@ '?i' C=>?E=∉) ?;A ' ?=@; i '
?i' ' ?D ;# >' ?i' (#; E ' J ∠ ' (" ='
?@"@ ;= ' *4 <8 >' ?i' 2 ?;< i#?C= 4
J?B=' 0@#8>' ?i' 0C<EB #∉ ?D ;# (< #B' ?i') D9'
8 i#?=' 8 '; (< #B' ?i') D8 #?= '>?C=A ;4
?D ;# = #;C#B@';?i' 1 == @∥;∉ (';) ?;A ' ?89'
i?= ' ?i' 88@ 8" ' %B ' & ;8 ' ?i' 0 C ; 8 ' >' ,
i?;' #B ' #>< ' %B ' & ;8 ' ?i' 0 >' #8 B = ' >88 '
i?;' #B ' #>< ∉ + ' ? E 88 ?i' + =@∉ ?L
D ;# # ?= ' ?i' 1 B>∉ %B ' K;? ? # ?i' (=#
= ; E ' i?;' #B ' #>< ' %B ' & ;8 ' ?i' %E 88 '
D >88 ' i?;' #B ' #>< '

$?;'#B ' (B ; ' ?i'* =;?i 4

J?B='0?; ' C;AB8 '%B '0?; ' ?8 88∉ %B ' < # ';
?i C;AB8 ' (';+ ' ;='?# ?i' #B # *8"∉ ?D ;#
+?EA8 '?i' 1 ;"= ' (';J?B=' * 8@?<@ ?i' *== ;9'
88∉ J?B=' *8C88 >' ?i'% 88 D?8 ∉ 0 = >
?i' +?EB 88∉ J ∠ ' ="= ' ?i' ?8 =∉) ?;A '
A8 '?i'(#; = ; ∉ J ∠ ' OC= ' ?i' C@B# ;;= ;9'
= ∉ ?D ;# 8i?C; ' ?i' 88D ;= ∉ J ∠ '* ' ?i'
;C=#?==@∉ %B ' ?C=# '?i' ?#B ' >' 'i?;'#B '
#>< ' ?= K@==>' ?i' / #< ' ∉ ?D ;#
8 88 ?i' T " ; ?@B' J Þ ;#BC; ' * @A 88 ?i'
1 <?@"' %B ' ?C=# '?i' 2 >< ' >88 'i?;'#B '
#>< ∉ (';2 88 =' ;C@ ' ?i' 1 =;?i ' J?B=' ;C@ '
>?C=A ;' ?i' 1 =;?i

;NC ' ?!' +?2A8 ' >88 ' !?;' #B ' #>< 4' %B ' ;NC ' ?!' #B?8 ' >88 ' !?;' #B ' #>< 4' %B '& ;8 ' ?!' ?;#B 8" ' >88 ' !?;' #B ' #>< ' %B '& ;8 ' ?!' 8 #?= ' D ' ' !?;' #B ' #>< 4' %B '& ;8 ' ?!' 0 C9' ; 8 ' >88 ' !?;' #B ' #>< ' (;') ?;A ' B8 @" =9' W ' ?!' 1? B CAB ' >88 ' !?;' #B ' #><

Ó $?;' #B ' B ; !8! ?< ' ?!' <!!'

%B '4& ;8 ' ?!' ; B 88' %B '& ;8 ' ?!' ;8>4' %B '& ;8 ' ?!' !! = 8 #?;' %B ' 0?; ' 1 #B4' (;' $ #; @"' A 8 ' ?!' ?>= 4' (;' J < ' A 8 ' ?!' BC;@B 884' %B ' 0 ; ' ?!') ; =#4' %B ' 0 ; ' ?!' ?>= 4' (;' J < ' <; ' ?!' C < =4' (;') ?;A ') ?; ?= ' ?!' & =A8 ! 4' (;' J?B=') ?; ?= ' ?!' / ;" 4' ' / #; @"' A 8 ' ?!' / ## = == =A' (;' J < ' D ;L @;?<D ' ?!' ;" =D?A ' J?B=' A 8 ' ?!' 1 <K@ ;= 4' ' J?B=' D ;@;?<D ' ?!')8 ! @B4' 2 88 <' +C<9' D ;' ?!' +C< ' D ;@;?<D ' ?!'4' (" #B' 8 F9 ;' +C!!' ?!' ; @@?' P) ; =' ?!' %;?CK 4' J?B=' < >' ?!' 8;?! 4' ' 2 88 <' J?! ' ?!' ?88 =E ; 4' J < ' A 8 ' ?!' / ?8 4' 8 F7' >' ?!' ;=D #B4' 8 F7' A 8 ' ?!' !!CA = 4' %B?< ')?; ?=' ?!' ; = @B' B <D ;8 = ' #?' #B ' +C" ' ?!')?; ?= '); A?; ' ?!' 1 = ; 4' ') ?;A 8 ;C<' ?!' ;?<D 4' J < ')?; ?= ' ?!' ; 9' < ' 4' 8 F = ;' +C!!' ?!' ! ! #B<? ;4' 7' %B?< ' 0 E' ?!' E#?C= 4' J?B=' 0 !8 ' ?!' !! = 4' 2 8# ;' '); =#' ?!' ; = 8 4' 8 F7' +C!!' ?!' +;C<<F ; 4' J?B=' *== ' 8 ;' ?!' & =A @B' (C#B ;8 = ' ?! 1 =< = # n' 8 F7')?; ?= ' ?!' "" =DC;= ')?; ?= ' ?!' @B>= @B 4' / #; @"' +C!!' @B <D ;8 = ' #?' #B ' +C" ' ?!')?; ?= '); A?; ' ?!' 1 = ; 4' ') ?;A 8 ;C<' ?!' ;?<D 4' J < ')?; ?= ' ?!' ; 9' < ' 4' 8 F = ;' +C!!' ?!' ! ! #B<? ;4' 7' %B?< ' 0 E' ?!' E#?C= 4' J?B=' 0 !8 ' ?!' !! = 4' 2 8# ;' '); =#' ?!' ; = 8 4' 8 F7' +C!!' ?!' +;C<<F ; 4' J?B=' *== ' 8 ;' ?!' & =A @B' (C#B ;8 = ' ?!

$?;' #B ' B ; ' ?!' (C#B ;8 = ' %B ' 0?; ' (#; #B= ;4' %B ' 0?; ' +C!!C 4' %B ' 0 ; ' ?!' ! =#4' (;') ?;A ' ?=;? 4' (;' ?D ;#')?; ?= ' ?!')?; ?= #?C= 4' + ' ?!' ' ?!' B A?E= ' (;' ?D ;#')?; ?= ' ?!' &<D?4' 2 3 <' (C#B ;8 = ' ?!' *= ;@B !8 4' ?D ;#' C;; >' ?!' / C8;?! 4' ?D ;#'); >' ?!' (" D?4' 8 F7'); >' ?!' C# B '4' / #; @"' +C<D ;' ?!' (;>4' <')?; ?= ' >?C=A ;' ?!' + 8EB?' 4' J?B=')?;L ?= ' >?C=A ;' ?!' 884' =AC ' ||" >' ?!' AB?C ' B ;8 ' ||" >' ?!' (= E?? 4' CAB' " >' ?!' (#; #B ' 8 F = ;' (C#B ;8 = ' ?!' / ;?C! 4' 8 F7')?; ?=' ?!') ; ')?;A ' +C<D ;' ?!' C@D =9' = 4' >88 ' ?!' +?;=?@B4' J?B=' ?=;? ' ?!' *=9' ! ;; =4' CAB' ?=;? ' ?!' & ; D?884' J?B=')?; ?= ' >?C=A ;' ?!' &<D?4' J?B='); >' ?!' 0 =AE '4' CAB' (C#B ;8 = ' ?!' 1 = C8 4' 2 88 <' ||" >' ?!' ?;=;>' ?D ;#')?; ?= ' ?!' ;;?884' J?B=' ||" >' ?!' (@?C; 4' %B ' 0?; ' ' >88

$?;' #B ' B ; ! ?< ' ?!' #B=

%B ' 0?; ')8 =C;@B 4' (;' J < ' (=@";' ?!' >' (;') ?;A ' (=@8 ;' ?!' 8 #B4' J?B=' (=@8 ;' ?!' C;# 8 4' 2 88 <' (=@8 ;' ?!' +C=D #B' (=@8 ;' ?!' ;>< ' 8 ;' C;; >' ?!' 8 ;9 = 4' 7' 8 F = ;' 8 ;' ?!' CA =A 884' ?D ;#' <KD 88' ?!' ; A8 4' J?B=' (=@8 ;' ?!' !!; 8B9' E " 4' 0 C; =@ ' 8 ;' ?!' 0>= A ;4' M / ' (CL #B ;8 = ' ?!' !!?; 4' J?B=' (=@8 ;' ?!' ' 8D # ;' ?D ;#' <KD 88' ?!' + 8A ?@B4' %B ' B ; !!' KC#?!' #B9' = ' !?;' #B ' #>< 4' 8 F = ;' (< ;#?!' 2 # ;4' %B ' D >88 ' ?!' %BC; ?' !?;' #B ' #>< 4' 2 P' +C<D ;' ?!' <K; A 4' J?B=' (=@8 ;' ?!' (# ;"@?A 4' J < ' (CL #B ;8 = ' ?!' = 8 4' 7' ?D ;#' +C<D ;' ?!' ;"9' =A 8 4' J?B=' (=@8 ;' >?C7' ?!' +C<D #B4' / #; @"' (=@8 ;' ?!' (?K#B C= ' (=@8 ;' ?!' ; D88 ; (= ;' ?!' <K # ;' J < ' (=@8 ;' ?!' 0>D # ;4' = ' J < ' (=@8 ;' ?!' ?>' %B ' 0 ; ' ?!' >< ' >?C=A ;

$?;' #B ' D ; !! ?< ' ?!' &8A = '

8 F = ;' 0?; ' +C!!C 4' %B ' 0 ; ' ?!'); =#4' %B ' 0 ; ' ?!'); =A 4' (;' ?D ;#')?; ?=' ?!')?; ?= 9' #?C= ' %B ' 0 ; ' ?!' *== 4' %B ' B ; !!' ?!' C;; >4' %B ' 0 ; ' ?!' ;? 4' %B ' 0 ; ' ?!' 8#.V; 4' %B ' 0 ; ' ?!' +C<KD 88' >?C=A ; ' %B ' 0 ; ' ?!') ; =A 9' B 884' ("' J < ' 8 ;' ?!' ??;#?C= 4' %B ' 0 ; ' ?!' 0 #B = 4') ?;A ' ;? ' ?!' 8 "4' %B ' 0 ; ' ?!' ! = ; ! 4' 8 F = ;' +C<D ;' ?!' !# ?K<>8= 4' 2 88 <' + !!' ?!' + K8 4' 2 8 ; ' ;? ' ?!' ?8#9' ! C8 4' J?B=' +C<D ;' ?!' ? A 4' J < ' B;> # ' @B <D ;8 = ' #?' #B ' & ;8 ' ?!' C;; >4' ' "'

;NCB ;# ?i' C;; i> ; ¢ %B ' O ; ' ?i' &8@B '
) ; =# ?i' @BC##?=¢ ?D ;# C< =A'
>?C=A ;'?i'0?A ¢ ;8 ' @" =W '?i'& ;= > ¢
%B?< '+C<D ;'?i'& # ;D ;= ¢ %B ' ?C=# 'ʔi'
?#B 'D >88 'i?;'#B '#><

$?;'#B ' B> ;'?i' ?i

%B ' @?C=#?i'% ;D #¢ (;'J?B=" ?=;'?i'ii?C8 '
(;') ?;A ' ?=;'?i' C8; = ¢ ‖ ? ; @"' hg
" =W '?i' 1 88@BC8 ;C< ¢ %B ' O ; '?i' 8= g
A?E = '%B ' O ; ?i'ii?C8 '>?C=A ;¢ 1 == #B'
* ;" =W '?i' ;?< ;'# ¢ (;' 8 F = ;" [" =W '
D1' ?C ' ¢ (;'+?= 8 ' >= '?i'%C8?@B¢ %B ' O ; '
?i' 1 8; ?@"¢ ?88 = ' ‖" =W '?i' @ i#8 ¢
1 == #B' ‖" =W '?i'(@ ##E 88¢ 8 F‖) ; B < '?i'
+;>= ¢ C; ?@B' ‖" =W '?i' ii ;DC;=@¢ 8 FL
= ;'6 ‖" =W '?i' 88? =@¢ 8 F = ;" ‖" =W '
?i' @88< C#B ¢ %B 'O ; '?i') ;8?@B¢ 8 F = ;'
OJ " =W '?i' K8 @;?i ¢ J?B=' * ?=;'? ?i' ii>; ¢
) ?;A ' C=;'?>?C=A ;'?i' C8; = ¢) ?;A '* C=;'?
?i'1 E<? ;¢ CAB' C=;'?>?C=A ;'?i' % = = @B¢
2 88 <' C=;'?' ?i' % >=; =¢ %B 'O ; '?i'* *@
=?# B¢ C; ?@B' ‖" =W '?i' ; ;?i ¢) ?;A '
?i ' ?i' ?; =@B ¢ J*‖ J?B=' >= '?i' + 8= ¢
@#?;' 8C=;'?'?i'+;C< <?= ¢ J < ($@C88?@B'
?i / ' #?C= ¢ 8 F = ;' ?i '?i' 0 ##8 # ;; 88¢ ‖2 8L
8 <' ?i '?i' 8 ¢ 8 F = ;' ?i '?i'& i# ;i = ¢
J?B=' ii?% i# ;'?i' C8= C8 ¢ (< ?=' ‖" =W ?'
?i' % ;; ; = ¢ + ' ii < '?i' % ;8?A ¢ J?B='
?=;'?i'0?A ¢ J?B=' ?i '?i' C@B= ?@B¢ ?L
D ;'# C=;'?' ?i' 8@>= ¢ ? ; @"' 6 @" =W '
>?C=A ;' ?i' @ #8 ¢ ? ; @"' @" =W '?i'
1 8@?C ¢ %B 'O ; '?i'ii = ; i ¢ (;') ?;A ' 24@

" =W ' B <D ;8 = ¢ + ' ?i ' 83"+' "6' 1 =9'
@ 4

+' ; = ' #B ' i ; '# < #=A' ?i' #B ' ' ?i' ;
?<< i ?= ; ' i?;' #B ' i ; '' B>; ¢ #?' D ' #
‖#B ' B 'DC;AB ' K‖?i' CK?=' #B ' #=A' #B # < >'@?=9'
JC= '*= # =#' # # =' '@@?@"¢ i?;' #B ' B>; '?=' #B '
i ' ?i' #B ' ;' ?i' % >¢ = ' #B ' #E =#>' i?C;'#B'
B>;' 'D ' =?;'#B' #B ' ; ;' ?i' % >5 = ' #B #'#B '
< ?;' K ;'# ?i' #B ' ?<< i ?= ; 'EB?' B 88'
< '#' #'#B ' 'i ; '# > #?';' =>?i'#B ;' > #'#B ; L
i# ;¢ ? ' K;?@ '#?' #B ' F @C# ?=' ?i' #B ' #;'C #
B ; D>' @?<< ## '#?' #B ¢' = 'KK? =# ' # ' #B '
B ; i ';'#B ;' KC# '#?' *=# < # ' #B ' i ; #
> #?i' < #=A'#?'#B ' ?<< i ?= ; ' ?i' #B ;'; L
K @# ' B>; ¢ E #B' K?E ;'#?' #B ' ?<< iL
=A' = ' #B ;' ?= = ; i;?<' #>< '#?' #>< ' '
#B > B 88' i = ' FK =#¢ i?;' #B ' <?; ' ii @#C 86'
F @C# ?= ' ?i'#B ' @#' = ';' < ## ' #?' B ' L
'K; >' ?C=@ 88#?' =?< = # '?#B ;'K ; ?= '#?'D '
?< i ?= ; 'CK?=' #B ' #B' ?;' =?# @@ K# =@ '?i'
=>' ?i' #B ' K ; ?= ' D? ' = < 5' = ' i?;' #B '
C;AB '%B ;' # ' E #B' >@ ' i?; ' ? '
?< = # ' = ' KK? =#'#B ' A #; # '?i'#B ' < '
i?;'#B '#>< 'D =A¢ E #B' K?E ;' #?' @B??i '
(# =#< # ; ' E #B =#'#B ;'; K @# 'D?C= ¢ EB @B'
?<< i ?= ; ' ?i' B>;' ' ?= ; ' DC;AB ' B ; D>'
/ ;?b> =A' 8E > ' #B ' NC?# ' ?i' #B ' ; K @#

B%' D '@?=# =C ' = '; < = 'E #B?C# =>' 89
; # ?= ' = '#B # #B ' CKK8>' B 88D 'K > 'D'
#B ' B>; 'ʔi' ;E @"' '#B >'B 'D =' ='C '
#?' K >' = 'D>' #B '; < = =# B>; ' @@?; =A'#?'
#B ;' FK; i ' K;? i ?= ' #B # ;>' B?;i < =¢ EB?'
'#B ' FK; i ' K;? i ?= ' #B # ;>' B?;i < =¢ EB?'
B 88D 'CK?=' #B 'K8 @ ¢ B 88 B '?=8>'i; ' =A8'
NC ;# ;' 88?## '#?'B <'CK?=' #B 'K ; ?= ' i @ =#
?;¢D>' NC ;# ;' =A' =' DC;AB ' = ' 88 A ' ;#B '
?< < i ?= ;' B 88 KK? =#¢ #?' D ' # i ' = '
K > 'D '#B ' i @ =# ¢ =' =?#D>'#B '?=' EB?<'
#B >' ;' NC ;# ;' ' F@ K# EB ;' #B >'#B < 8 '
; i @ =#>' ;' =' #B # @ i ' #?' B ' i i# =' B 8L
8 =A' i@?# ' ' >'i;?<' #B ' #>< ' ?i'K; =# =A' #B '
?; ;' #?' #B ' ?88 @#?;' CK?=' EB?<' #B >' ;' ;
NC ;# ;'C=# 88'B 'A '#B <' 'O i#?i'#B ' i @ =# ¢ '
= '#B ' ?C< ' EB ;' =' #B >' ;' i @ =#¢ = '
#B ; i#' ;'#?' NC ;# ;'CK?=' #B ' i @ =# ' = ' @B'
; A??= ;' #?' B ' # =' B 88 =A' @?#' ' >¢ = '
@B' i??#¼< =' #?' B ' i?C;' B 88 =A' i@?#' ' #B '
?< < i ?= ;' B 88 ?; ;' = '#B ' ?< < = ;' '
?i'#B 'K ;'# 'ʔi'B?;i ' +; A??= ;'?;'i??#¢ #?'B '
?=8>' ?CD8 'K >' ?i' = ' B?;i < =' ; A??= ;' ?;'
i??#< =' 'B ' ; = ' @8 ; '#B ' #' =';?; ;'
#?' #B 'NC ;# ; =A' i?;' i @ =@' =>'#B; ' ?i'#B '
<K?E ; '#?'K;?K?;'# ?=' CK?=' = ' ; i 'i;?<'#B '
i @ =#' #B ' FK =i ' = ' @B ;A ' ?i'#B ;' i L
@ =@ ¢ = ' #?' i ' K >< =# < ' #?' #B i ' ?='
EB?<' #B ' i?C8 ;' ' NC ;# ; ' EB?' E ; '=?#
i @ =#'#B <i 8 5 = 'iC;'#B ;' #B ' ;' =A8'
B 88D 'CK?=' #B 'K8 @ ¢ B 88B 'ʔ=8>'i; ' =A8'
NC ;# ;' 88?## '#?'B <'CK?=' #B 'K ; ?= ' i @ =#
?;¢D>' NC ;# ;' =A' =' DC;AB ' = ' 88 A ' ;#B '
?< < i ?= ;' B 88 KK? =#¢ #?' D ' # i ' = '
K > 'D '#B ' i @ =# ¢ =' =?#D>'#B ' ?='

?= ;4 D i?; '#B >' K;?@ '#?' @# '?<< i9
?= ;Y4 ? '# " ' E ; ? 'iCDi@;> '#B '? #B' ?i'
' A =@'#?'#B ;' i# '1 =A' 2 88 <' = '
3 =' <>4 =' 8 " E > '#B #'#B ' 8 ;" ' = '
?88 @#?;'EB?' B 88D ' KK? =# 'D '#B '8 ' ?<9
E ;' = ' CDi@;> '#B 'i?; ' ? #B'?i'#B #'#;C #4 ?'
< i ?= ;' #'#B ;' @@ K# # ?=' ?i'#B #'#;C #4 ?'
?i' / ;8 < =#4 = 'E ' < ## 4 #??" 'B 'K8 @'
= ' ?# ' ' 8 ;" ' A i# ;4 = '#B ' i?;i' ' ?<L
< i ?=' C= ;'#B ' A; #i '' E #B' B ' i#
0 ## ;'E ; ' ?; = '#?' D ' ; @?; ='D??" '?i'
/ ;8 < =#5' E #B' #B ' i?;i ' @?=i =# A; =# ' D '
#B ' ; < =# ?<< i ?= ; 5' i' #B ' EB @B' #B '
=?;' i? ' ?E Z

A i# ';' =' / ;8 < =#4 '8i?'#B ; 'E 'K;'? C@ '
#B ' @?; ' ?i' / ;8 < =# V EB @B' ? '@?= 9'
i@ = ' CK?=' #B ' =C<D ;' ?i' #B ' ?ii @ ;' ?i' # # '
C<' =?< = ; 4 i @ ; 4 @?= # #C ; ' # ?; = ; 4
i 8 ' # 8 @#? ' =?i#;? ' @?= 8 ;? 4 ?D ;'#C<'
A #;C<' ' C;8 AB' +?< =C<' %B?< <' C;L
= # ' 0 > ' # J?' == <' +?< =C<' ' =4
@'i 8 ' # 8 @#?' =?i#;?' +?< =C<' +C=@ =C<'
<KD 88' ' C@B =D; @"' # J?' == <' >' '
/ ;" 4 C; =# ' =? #;?' D = K8 @ #?' C=# F # ?<9'
< i ?= ; ? ' K;?' F ;@ = ?' <C= ; ' # ?ii @ ?' =?' L
#;?;C<' ;?#C8?;C<' # A i#;?;C<' 8 ;@' #N ' ?=9'
i 8 ' (i ?= 4 (@ @@ ; 4 ?<= C<N'A = ; 8 C<' @?=9'
@#'=?i#;' ; A= 4 8 ; @ 4 + = ?' # ?=@ = ?' '
<C=C' # ?ii @ C<' =# @#C<'X C; =# ' K # ?'K; 9'
@#?' @C<'?<= DC ' K; 8 A ' <?8C< =# 4 *<9'
<C= # # DC ' #@ C 8 # # DC ' ?' K @# =# DC 5 9'
; = ?' =?D ' i?8 <' K?# # # <' =?<= = = ' #'
@?=i# #C = ' ?<= ' =' @#?' A=?# 8 ;' @?' '
@#?'?ii @ ?'K = =# 4 X 8 ;' @ ' @ @?< i #CC<' #
JCi# @ ;'?;C<'K @ ' =C ' ?' < ? ?' =@8Ci '# =NC <'
' 8 C '?ii @ C<' K @# =# DC '' ; = <C '<K?;';?' #
K?# i# # <' #; DC < C ' @#?' ?D ;#?' A i#;?' '
C;8 AB' +?< =?'%B?< ' C;= #' '0 > 'J?' == '
C@B =D; @"4 #'J?' == ' >' / ;" 4?<= ' #'
=AC8 'i @ = ' K ;'8 A ' #'K; F =' BC C ' =? #;'
; A='@?<K # =4 NC '# <K?;'NC?8 D #'; #;? @#?9'
K ;K; C ' @# ' iC ; 'K ;'NC <8 D # @#C<'?ii @ C<'
F ;@ =# <' iCD' F@ K# ?= DC ' =# @# 4 @C<' . 4
K?# i# # ' # ; ' @#C<' ?ii @ C<' F ;@ = ' @
NC m' K# =#C;' ? ; # ' *A #C;' ?'=?< = i 4
ii @ i 4 @?=i# #C i# ' #' ?; = i 4 # =?; N' K; =9'
C<' =?< = ;4 i @ ; 4 @?= # #C ; ' # ?; = ; 4
' ?i<< ' 88 C ' i C@ ' <C=C '?D C= C<'CiNC '
=AC8 ;6 @C <' K ; ?= ' @?<< i #; #C;4 #N' K ;9'
<C 4 ## 88'>?E4#B *'B ='?' E ;;' = '=?';' =i#;C@9'
?= 'i?;'#?C@B =A'#B #' ?# '?i'#B '8 #(i#?= '?i'
/ ;8 < =#' K?" '?i'> # ; >'=; 8 # ?= '#B ; #?5
= '*' ;'#B #'=?' < <D ;'?i'#B 'O?> 88' / ;L
8 < =#' < >'?ii ;' #?' @ 88 =' NC i#?= 'EB #' B '
EB ; D>' #B >' @NC i@ ' Q @?=i =#' #B ' #B ' i '
4 ?i' C;8 AB' *B?C8 ' =' Q"3' -^-+4' ' i-S-

A i# ';' =' / ;8 < =#4 '8i?'#B ; 'E 'K;'? C@ '
#B ' @?; ' ?i' / ;8 < =# V EB @B' ? '@?= 9'
i@ = ' CK?=' #B ' =C<D ;' ?i' #B ' ?ii @ ;' ?i' # # '
EB @B' iB 88' B ' ?' =' / ;8 < =#4 ' i#;'
; =A' J ?i' #B ' i# ;' ?i' C;8 AB' '# " '#B '
? #B' ?i' 88 A =@ ' #?' #B ;' # ' = '#B ' ? #B'
?i' / ;8 < =#4 = 'E ' < ## 4 #??" 'B 'K8 @ '
= ' ?# ' ' 8 ;" ' A i# ;4 = '#B ' i?;i ' ?<L
< i ?=' C= ;'#B ' A; #i '' E #B' B ' i#
0 ## ;'E ; ' ?; = ' #?' D ' ; @?; ' =' D??" ' ?i'
/ ;8 < =#5' E #B' #B ' i?;i ' @?=i =# A; =# ' D '
#B ' ; < =# ?<< i ?= ; 5' i' #B ' EB @B' #B '
=?;' i? ' ?E Z

) ' 0*&0 ' (' Q * ' + ') ; # ' A= '
; ## == <4 ii; =@ ' # D ;'= <' F' # A = '
i N4 i = ?i ' <= DC ' K;?D ' B?< = DC ' C ' '
'NC? 'K; i =# '8 # ; '=?i#; 'K ; = ; B# (8C# <'
3C = ?NC <'=? ' F' < #C; ' <? C<' 8 D ; L
# ?= 44 ;'=' ; # ?' # =# ; i '=?' #;?'NC <' CD #?9'
;C<' =? #;?;C<' @?<< ?' =C='@' # <K?; ' = @ i 9'
; C<' i 'JC @ =# 4 C#' C<< ' ' C ' C= ; ' #
?ii @ '=?i#;?;C<' ;?#C8?;C<' # i#;?;C<' 8 ; @'
='B?@'=? #;?' (@?# <' A=?' < = i#; # ?4 NC DC 9'
<'K;?D # 'i8 8 # # ' @*=# A; # # 'K?# C 'NC <'
=AC8 ;6 @C <' K ; ?= ' @?<< i #; #C;4 #N' K ;9'
<C 4 ## 88'>?E4#B *'B ' ;=?' E ;;' = '=?';' =i#;C@9'
?= 'i?;'#?C@B =A'#B #' ?# '?i'#B '8 #(i#?= '?i'
/ ;8 < =#' K?" '?i'> # ; >'=; 8 # ?= '#B ; #?5
= '*' ;'#B #'=?' < <D ;'?i'#B 'O?> 88' / ;L
8 < =#' < >'?ii ;' #?' @ 88 =' NC i#?= 'EB #' B '
EB ; D>' #B >' @NC i@ ' Q @?=i =#' #B ' #B ' i '
4 ?i' C;8 AB' *B?C8 ' =' Q"3' -^-+4' ' i-S-

1-' " . @
. %6,%"7-+'
-4i2+23%"7
27-73 31-'
-6,%"7

" . . %6,%"7-@
3"' & ' ' *
+',> * 0&'
=+*.'> '
& 7 'Q-'
6"+' 1G *- '$
& 0' & '"66%42'
"6') *('
1 0 , *

@; K# ' A= = 4 K ;' B D ?< <4 < =! <' ! C' K # C<'#; < !#; 'K ;' @ 4 8 C=C<' F' ?;C<' =C< ;?' =?< = = ' '?!! @ C<' K;?' ; 8 NC ' F ;9' @ = C<'K;?C#' K ' (C<'!C ; # *='@C C '; '# # L <?= C<4 K; ! =# DK ' < A=C<' A 'C<' =?!#;C<' KK = ' < = <C 4 KC ' C8 <' =? #; <' ' 1 = =A#?C=' K# <?' ' < = ' + @ <D; ' ==?' ?< = ' ' <?' F@ =# <?' ?@#C A <?' =?=?' #' <?' A= '=? #; 'K; <?' / ;' A= #C; <' < =C' (Ĺ + Ĺ Ĺ A ' CK; !@; K# < @' CK; @; D #C;' 2 *0 0 * '

%;' 2$-,W '= *' K? =# =A' 31-' 6 "6' 8+!-%#1'3"' & 7 '< - ' Q'7+ ' ' 8 '?!' ! A !# ;

2 & & ('## '<? #'K ;#'?!'#B '?!! @ ; '?!' # # ' ; '=?E' =' ?< < ! ?=5 = '#'D =A' K;? > ' D>' #B ' @#'?!' / ;8 < =#'* 8V' %B #'#B '=C<D ;' ?!'?C;' ?!! @ ; '?!' # # 'EB?' ; '#?' B ' ?# 4 (Ĺ K8 @ ' =' / ;8 < =#' = ' ;# ' B?C8 '=?#' F@ ' #B '=C<D ;' ?!' AB#5 =' #B?CAB' #' =>' #>< ' #B ; ' B?C8 'D '<?; 'K ; ?=' <K8?> ' =' #B ' F L @C# ?=' ?!'#B ' '?!! @ ' %B ; !?; 'E ' ? '=?< L = # 'Q KK? =#'?C;'%;C!#>' = 'E 88'D 8? ' ?C=L 88?;' ?D ;#' ## ;' ?!' C;AB8>' EB?' '?= '?!'#B ' ?< < 8 ?= ; ' KK? =# '!?;'#B ' F @C# ?=' ?!'#B ' ?!! @ '?!' 8 ;" '#?' ?C;' A!! ;'#?' KK ; ' = ' @#' ' 8 ;" ' A !# ;5' = #?' B 'K8 @ 'Q ?# ' =' #B ' @?= ' ! ?=' ?!'?C;' / ;8 < =#7' ;# 4' = ' 88' ?#B ;' JC @ #C; ' ' =>' ?!! @ ;' ?!' (# # ' C; =A' #B '#< '?!'#B ' @?= ' ! ?='?!' / ;8 L < =#' = ' >' = 'EB 8 ' ' A= !>' ?C;' K8 C; ' #B ; = =#Ĺ) =' #' ?C;' ?C;#' #' 1 = =A#?C=' #B ' ' >'?!' K; 8'* 4 = '?!'?C;' A= '#B ' @?= '> ;

-4!2+23%"7' "6'3%-')+6 ' .%6,%"7-+,' "6' 31-' -#%63-+,' "66%4-'%7' 62Q"8+,' "6' 31-' *' "6' 8+!-%#1

2 &' (7%B?< ' C< #'?!') -' J?B='0?; ' 89' B =4 (7' +C=@ =' <KD 88'?!' C ==D; @"' Q' J?B=' >'?!' / ;"4 !?C;' ?!' #B ' !> ' ?< < !' ?= ; ' KK? =# ' D>' B ' # @4 !?;' #B ' K8 @ ' = '?!! @ '?!' 8 ;" '?!' B ' # ' !# ; ' = ' ?88 ' Q@' ?= ; =A' #B #' D>' B ' # ' A !#' = '8 ## ; 'K # =#' A; =# '#?'C ' = '?=;' ?88 AC 4' !# ;' = < ' !?;' #B ' !! @#' !?;!! 4 ?!' #B ' # ' #B ' =#B' ?!' + @ <D ;'8 #' C= ;'#B 'A@ #' 8'?!' #B ' " =A ?<' K?E ;' ' A =' #?' C '#?' F ;@ '#B ' !?;! '?!! @ 'E #B' 88'#B 'K; 8 A '#B ; #?'D 8?=AL =A' ?;'K ;# = =A' #B ;'D>'#C< ' ?;'D>'= < =A' ?= ' ?!' ?C;' ?E=' =C<D ;' !?;'#B #' !! @#' B?C8 ' ! <' A?? '#?' C ' '#B ' !?; B 'K # =#'<?; '!C88>' D ; 4' ' 8 ? '%B #'B ' 7Y 'D>' '0 ## ;'C= ;' B ' ?> 88' B = 4' ; =A' #' #B 'R -' >'?!' d K; 8-' = '!?C= 'CK?=' = ' @#'?!' / ;8 < =#' VĹ 2 B ; D>' *#' ' K;? > ' #B #' !' ##' =>' #>< ' #B ; !# ;' #B ; ' B?C8 'D ' =>' < ' ?!! @ ; ' ?!' # # '=?;' AB#' <K8?> ' =' #B ' F @C# ?=' ?!' #B ' ' ?!! @ 4 D>' KC# # ?=' ?=' ?;' ?#B ;L E 'EB # ?< ;4 > #' = ' < ' B?C8 'B 'K8 @ 9 = ' ?# ' ='#B #' = ' 88' / ;8 < =#'#B ; !# ;'B?#' AB#' 8 == ;8>5' #B' =?< = #' = ' KK? =# ' ?D ;#' # ;' ?!' C;8 AB4 ?= ' ?!' ?C;' =C<D ;4 = '#B ' ! ;!#' ='#B '!?;! ' ?< ! ?='A; =# '#?'C

!?;' #B ' ' ?!! @ ' ' ! ' '#?'*< '#B 'K8 @ ' = ' ?# ' ='#B 'K; =#' / ; < =#' D 8?=A =A' #?' #B ' ! '?!! @ '?!' 8 ;" '#?'B ' ## ' A # ;' = ' ?88 '%B ; !?; '2 ' @@?; =A'#?'#B 'K?E ;'A ='#?'C 'D>'#B ' !?;! '8 ## ;'K # =#' = ' ='@?=!?;< #>' #?' B ' J !# ' 1?< = # ?= ' D? ' < =# ?= +? ' B ; D>' ?< = # ' = ' ?=## #C# ' %B '! ' ?L D ;#' 8 ## ;' ?!' C;8 AB4 #?' F ;@ '#B '!?;! '?!! @ '!?;'C ' =' < == ;' = '#?'#B ' !! @#' !# ;' < =# ?= ' 8 == ;8>' %B #' '#?' >') =A' Q' ?< < ## =A' 0>" ' E 'B ; D>' A ' = '@?< < ##'#?' B <' ?C;' !C88' ; AB#4' K?E ;' = 'K; 8 A 4 ?!'B =A'K8 @ ' = ' ?# ' =' / ;8 < =#' !?;' C 4 ' ?< < ! ?= ; '!?;'#B ' '?!! @ 4 = ' @"B" ' = ' 8! '!; 8>' = '!C88>' '#B ' < ='B #B'D =' = ?> 'D>' =>' =A8 ' 8 ;" '?!'B ' # ' A # ;' = ' ?88 ' = ' ' 'A =' Q' @?< < ## '#?'C 'D>'#B ' 'K # =#Z = 'E ' ;'@?=# =#' = '@?=! =#'#B 'K; =#' 9' D ' = ;#' = '; A; #' ='#B 'D??" ' = ' @?; '?!' / ;8 < =#' #B ; ='#?'; < = ' '!C#C; <'; '< 9' <?; <' = '#?'#B #' !! @#' ?=## #C# C;' K;?; '*='#?" ='EB ; ?!4' E ' B ' !CB!@;> ' #B ' K; ! =#' X E; ## =' D ' + '0 = ! >'E; # ;' ='& ||'' ##' & =DC;AB' #B ' #E =# ' AB#' >'?!' K; 8' * j'> || =>=# '> ; ' D !?; '#B ! 'E #= ! 'J?B=' = ; ?= '?!'+?EB ''Q' / #; @"'' C; ?@B' @' !CD!@; D #C;' 8B =4 (7 %B?< ' C;= #' (|| +C=@ =' <KD 88'QJ?B=' >Ĺ J?B=' = ; ?= 'E #= ' / #' C; ?@B' E #=

+ & & +' #B #' 88'K # # ?= ' = ' @#' '; 8 # =A' #?' !>= ' = '!?; ! C8#C; ' = '#B ' CD @#'?!'#B #' ;# ' ?!'#B ' 8 < '?!' AB#' ?;' A; =@ 'D ' Q',+*,. '

; < ## '#?'#B ' ?< < ## '?!' / ;8 < =#' KK? =#9' '!?;' !>= ' = '!?;! C8#C; ' E #B' K?E ;' #?' #B ' ' ?< < ## '#?' A; =#' E ;; = '!?;'@ # # ?= '?!' 88' K ;# '@?=@ ;= 'CK?=' KK8 @ # ?= '#?' D ' < ' #?' #B <

0 ('?; ; '#B #' 88' ?#B ;'K # # ?= ' = ' @# 4' =?#' ; 8 # =A'#?' !>= ' = '!?;! C8#C; 'B '; < ## ' #?' #B ' ?< < ## '?!' / ;8 < =#' KK? =# '!?;'@?=9' #; ;# '&8 @# ?= 5' = 'K ;# @C8 ;8>' #B 'K # L # ?= '?!' (;'J < ' < >' = ' |J < '(< #B5' E #B' K?E ;' 8!?' #?' #B ' ' ?< < ## '#?' K;?@ ' #B ; =# 88' B ' ' ?C#' @ # # ?= ' = ' #?' < " ' #B ;' ; K?;#'#?' #B ' / ;8 < =#

+ & & +'#B #'#B ' ; CAB#?!'#B ' @# D;?CAB#' ='!;?<'#B ' ?< < ## '!?;' @C; #>'?!'#B ' ; L #?; ' ! 88' = ' ; '?!' &=# 8 '?!'K ; ?= '!?;9' ! C8# 'B '# " ='=#'@?=! ; # ?= 'D>'#B ' / ;8 L < =#' D !?; '#B ' =# =@ '?;' ??< '?!'!?; ! C8#C; ' D 'K;?=?C=@ ' A = # #B 'K ; ?= 'K; =#8>' *=9' >#' 'D !?; '#B ' / ;8 < =#' !?;'#; ?=

% &* ' # ' ?< < ! ?= ; ?C< #B ' / ;8 < =#' # 88'#DC; >'= F#' #'# ='@8?@"' = ' @?=# =C ' 88'K;?@ ! ' = '@ C! '# '8'#B #' , ' / /

M2*. *' '+'

M2*. *' '+N + & *' H + 'Q -

M2*. *' '+' - ',+*' - * '+,')* . +* Q-' +,'< * + ' ,+*, .8

%ʻ &+* ') 4

J ' &ʻ ,**4ʻ 4+ 4,

% &ʻ ?88ʻ?!ʻ/ ;8 < =#@ 88

+5-ʻ6"+ʻ 3/-50-3"6ʻ .--3%7# "6ʻ 31- " . . %6ʻ ,%"7-+,ʻ"6ʻ 8::!0ʻ%7ʻ 31-ʻ,1%+-,ʻ "6ʻ 3%+!%7#ʻ -+31ʻH%#@ 3"7-ʻ275ʻ 3-92+3+%-ʻ "6ʻ %+S485W /+%#13

% &ʻ 0?;ʻ ?<<! ?=;ʻ);@ʻ =ʻ#Bʻ&###ʻ ?!ʻ/ ;8 < =#ʻ ?= ;=Aʻ#Bʻ#ʻ#Bʻ!;#ʻ >ʻ#ʻ?!ʻ < #=Aʻ KK?=#ʻD>ʻ#Bʻ8#ʻ @#ʻ?!ʻ/ ;8 < =#ʻ !?;ʻ#Bʻ< #=Aʻ?!ʻ#Bʻ ?<<! ?=;ʻ?!ʻ CKK8>ʻ=ʻ #Bʻ B;ʻ?=ʻ#Bʻ ʻ?!ʻ#Bʻ ;ʻ?!ʻ% >ʻD =Aʻ #Bʻ =# =#Bʻ?!ʻ#Bʻ *=!#=#ʻ@ ==?#ʻD ʻ@?= 9ʻ = =#!>ʻ " K ʻ =ʻ#Bʻ B;ʻ !#;ʻ< =#?= 5ʻ %B ;!?;ʻ#B >ʻ KK?=#ʻ#Bʻ!;#ʻ>ʻ#ʻ?!ʻ< #=Aʻ ?!ʻ#Bʻ ?<<! ?=;ʻ!?;ʻ#Bʻ CKK8>ʻ=ʻ#Bʻ B;ʻ ?!ʻ(#;8=Aʻ#?ʻD ʻ#Bʻ AB# =#Bʻ?!ʻJC=ʻ=#=#4ʻ =ʻ=ʻ#Bʻ B;ʻ?!ʻ/ ;#Bʻ=ʻ2 A#?=ʻ =ʻ#Bʻ (#E ;#;ʻ?!ʻ1 ;"@C DC;ABʻ#?ʻD ʻ#Bʻ =>=# =ʻ >ʻ ?!ʻJC=ʻ*=!#=#ʻ =ʻ?; =ʻF#;@#ʻ?!ʻ#Bʻ ʻ?; ;ʻ #?ʻD ʻ K #@B ʻD>ʻB ʻ # ʻ ?8@#?;4#?ʻ#Bʻ B;!ʻ?!ʻ#Bʻ B;ʻ D? ʻ<=#?= ʻ?;ʻ#B ;ʻ KC#ʻ#Bʻ#ʻ#Bʻ <ʻ<>ʻD ʻ=#<#ʻ#?ʻ#Bʻ ?<L <!?=;ʻ=ʻ#Bʻ;K@# ʻ B>;ʻ#ʻ#Bʻ ??;ʻ?!ʻ #Bʻ K;!8ʻ";"ʻ?=ʻ(C= >ʻ=F#4?;ʻ?#B ;E > ʻ ʻ B 88ʻD ʻ<? #@?= = =#

%ʻ &* ʻ # ʻ ?<<! ?=;ʻ ?C;= ʻ #Bʻ/ ;8 < =#ʻ# 88ʻ#?ʻ<?;;?Eʻ#ʻ#=ʻ@8?@"ʻ =ʻ@?=#=C ʻ 88ʻ@C!ʻQʻK;?@!ʻ#88ʻ#Bʻ#ʻ #><

%ʻ &+* ') 4

J ' &ʻ ,***4ʻ 4=@4F@

% &ʻ ?88ʻ?!ʻ/ ;8 < =#@ 88

R 7-73 2 2,30

% &* ʻ # ʻB ABʻ ?<<! ?=;ʻ<? ʻ#Bʻ#ʻ #Bʻ1 =A ?<ʻ B?C8ʻ=?#ʻD ʻ B?;#ʻ?!ʻ#B ;ʻ C#>ʻ <?;ʻ#B =ʻ?#B ;ʻ?!ʻ?C;ʻ= ABD?C;ʻ=#?=ʻ =ʻ K;?K? ʻ#Bʻ#ʻ#B ;ʻ< >ʻD ʻ ʻ >ʻ #ʻ K ;#!?;ʻ ʻ ?8 <=ʻ ;@ʻ=ʻK; >;ʻ!?;ʻ#Bʻ A??ʻ?!ʻ#Bʻ K;?# #=#ʻ;8A?=ʻ=ʻA=;86ʻ=ʻ!?;ʻB ʻ L # ʻ C@@!ʻ=ʻ*;8=ʻ=ʻK @ 865ʻ EB@Bʻ<?#?=ʻ E ʻ @NC !@ ʻ#?ʻD>ʻ#Bʻ B?C!4ʻ=ʻ#C >ʻ@?<ʻ AB#ʻ>ʻD =AʻDCʻSUʻ*=#=#ʻE ʻ KK?=# ʻ!?;ʻ 88ʻ#Bʻ B>;ʻ=ʻDC;AB ʻ?=ʻ#Bʻ ʻ?!ʻ#Bʻ E#;ʻ ?!ʻ%>4ʻ=ʻ#Bʻ#ʻ >ʻ AB#ʻ>ʻE ʻ KK?=# ʻ !?;ʻ#B !ʻ?=ʻ#Bʻ?#B ;ʻ ʻ?!ʻ#Bʻ E#;ʻ?!ʻ%>5 =ʻ?; ;ʻ#Bʻ#ʻ=ʻ @#ʻD ʻ ;E=ʻ=ʻKCD8 Bʻ J` =#4?!ʻ#Bʻ EB@Bʻ @#ʻ#Bʻ#=?;ʻ!?'?E

/ 0 %* ʻ!?;ʻ ʻ/CD8@"ʻ$ #

'B ' ʻ(& *) &ʻ 0 +ʻQʻ0 + ʻ#Bʻ 1 =Aʻ =ʻ3C =ʻ** # 4ʻ =ʻ#Bʻ&!## ʻ?!ʻ /;8 < =##" =A#?ʻ#B ;ʻ@?=! ;#?=ʻ#Bʻ K; L

=#@?= #?=4?!ʻ#Bʻ1 =A ?<ʻ?!ʻ*;8=ʻ =ʻ #Bʻ A; #ʻ =A ;ʻ#B; #= =Aʻ#Bʻ1 =A ?<ʻ!;?<ʻ #B =@ʻ =ʻ#B #ʻB ʻ #>ʻB ʻ =#C; ʻ#?ʻA?ʻ #B #B ;ʻ=ʻK ;?=ʻ!?;ʻ; C@ =Aʻ#B #ʻ1 =A ?<ʻ#?ʻ #ʻ C ʻ?D =@4ʻ=ʻ#B ;D>ʻ#?ʻ @C;ʻ?C;ʻ 8L A?=ʻ=ʻK @ʻ=ʻ#ʻD =Aʻ#Bʻ*= K =!D8ʻ C#>ʻ?!ʻ 88ʻ#Bʻ O A 4ʻ ʻA??ʻK;?# #=#ʻ=ʻ C#!C&ʻ CD @#ʻ=ʻ#B ʻ#><ʻ?!ʻ@?<<?=ʻ =A ;ʻ ;?C!8>ʻ#?ʻ@ 88ʻCK?=ʻ 8< AB#>ʻ)?ʻ=ʻ < !88>ʻ #?ʻ*<K8?;ʻB ʻD8 ! =Aʻ CK?=ʻ#Bʻ B ʻ #ʻ C= ;# " =Aʻ!?;ʻ#Bʻ*=# ;#ʻ?!ʻ#Bʻ/;?# #=#ʻ 8A?=4ʻ=ʻ#Bʻ ! #>ʻ?!ʻB ʻ" =A ?<5%B ;L !?;ʻ#B ;ʻ # ʻE#Bʻ @ʻ=ʻ@?=! =#?!ʻk` ʻ &!## ʻ+?ʻ?; =ʻ=ʻ KK?=#ʻ%B #ʻ KCD8@"ʻ=ʻ!?8<=ʻ! 88ʻ=ʻBC<8 #?=ʻD ʻ" KL ʻ=ʻ?D! ;ʻ#B;?CAB?C#ʻ#B ʻ" =A ?<ʻD>ʻ 88ʻ#Bʻ CD @#4ʻ=ʻ ʻ ?C#ʻ=ʻ @ =#<==;4#?ʻ K;>ʻ#?ʻ 8< AB#>ʻ)?ʻ!?;ʻ#Bʻ K ;?=ʻ?!ʻ?C;ʻ =ʻ =ʻ#B #ʻB ʻE?C8ʻD ʻA; @?C!8>ʻK8 ! ʻ#?ʻK;?# @#B ʻ !8 ʻK ;?=4ʻ=ʻ#?ʻ D8 8ʻB ʻ ;< ʻ E#Bʻ!C@@!4ʻ=ʻ#B #ʻ#Bʻ! ʻ! #ʻD ʻCK?=ʻ#Bʻ > ʻ!?88?E=Aʻ W!?;ʻ#Bʻ B;ʻ?=ʻ#Bʻ ʻ?!ʻ #Bʻ ;ʻ?!ʻ% >ʻCK?=ʻ#C >ʻ#Bʻ#E =#>ʻ!?C;#Bʻ ?!ʻJC=ʻ*=!8=#ʻ=ʻ!?;ʻ#Bʻ B>;ʻD =?;#Bʻ% >ʻ CK?=ʻ#Bʻ#C >ʻ#B ;!#;ʻD =Aʻ#Bʻ!;#?!ʻJC8>ʻ =F#5ʻ=ʻ?;=ʻ#Bʻ =#;ʻ#?ʻ*=#<#ʻ !;?<ʻ#B ;ʻKC8K#ʻ#Bʻ?D ;#?=ʻ?!ʻ#Bʻ ʻ! #4ʻ CK?=ʻ#Bʻ0?;ʻ >ʻ<< #8>ʻK;@ =Aʻ#Bʻ ʻ;K@# ʻ>ʻ#B #ʻ#Bʻ K?K8ʻ<>ʻ< #=ʻ #Bʻ BC;@B 4?;ʻ?#B ;ʻK8@ ʻEB;ʻ#Bʻ>ʻ?; =;8>ʻ ## =ʻ =ʻ ;@ʻ#?ʻB ;ʻ ;<?=ʻ=ʻ?>= ʻ #?A #B ;ʻ=ʻK ;!?;< =Aʻ#Bʻ C# ʻK;?K ;ʻ!?;ʻ C@Bʻ ʻ?8<=#>ʻ=ʻKK?=#ʻ#Bʻ @#ʻ#?ʻD ʻK; =# ʻ =ʻKCD8@"8>ʻK;?@8 <ʻD>ʻ ;C8 4ʻ @;ʻ?;ʻ KC; =#ʻ#ʻ#Bʻ<;@ #@;?!ʻ?!ʻ& =DC;AB4ʻ=ʻ K; =#ʻ@?Kʻ#B ;?!ʻ#?ʻD ʻ K #@B ʻ#?ʻ#Bʻ B;!!ʻ 8;"ʻ?!ʻ#Bʻ;K@# ʻB>; 4#B #ʻ#B >ʻ <>ʻ=ʻ#Bʻ <ʻ#?ʻ#Bʻ! ;'ʻ<=!8;ʻ=ʻ#Bʻ B>;ʻ#?ʻ*=#<#ʻ#Bʻ ʻ! #ʻ=ʻ<==;ʻ!?;!

%ʻ =#ʻ#Bʻ ?<<! ?=;ʻ?!ʻ(CKK8>ʻ EB?ʻ ?ʻ=?#ʻ" ʻ#Bʻ?#Bʻ?!ʻ 88 A =@

$ (' ʻ ʻ#Bʻ ?<<! ?=;ʻ KK?=# ʻ !!
!?;ʻ?; ;=Aʻ=ʻCK8!#=Aʻ#Bʻ CKK8>ʻ?!! ;ʻ#?ʻ#B ;ʻ
ʻD>ʻ#Bʻ @#?!ʻ#Bʻ VI7?!ʻJC=ʻ*= # =#4ʻ ;ʻ ?; =ʻE#Bʻ#B ;ʻ 8;"ʻ=ʻ ?88@#?;ʻE#B =ʻ #Bʻ ;88ʻB;ʻ=ʻDC;ABʻ#?ʻ#"ʻ=ʻ E ;ʻ #Bʻ?#Bʻ?!ʻ 88 A =@4ʻ ' ʻ(& *) &ʻ 0 +ʻQʻ0 + ʻ%Bʻ1 =Aʻ Qʻ3C =ʻ L # ʻ@?= ;=Aʻ B?Eʻ=@!;>ʻ #ʻ ʻ%B #ʻ#B ʻ EB?ʻ;ʻ=<ʻ ?<<! ?=;4ʻ?ʻ=?# 8>ʻ #B ;ʻ @@ K#=Aʻ?!4ʻ=ʻ@#=Aʻ=ʻ#Bʻ ʻ*<K8?>9ʻ <=#8 #ʻ#Bʻ KCD8@"ʻ!;@ʻD ʻ#B ;D>ʻ;#;5 %B ;!?;ʻ#B ;ʻ #ʻE#Bʻ @ʻ=ʻ@?= =#ʻ ?!ʻ#Bʻ ## ʻ?!ʻ/ ;8 < =#4B ;D>ʻ @8 ;ʻQʻ?;L =4#B #ʻEB? ;ʻ?!ʻ#Bʻ ʻK ;?=ʻ KK?=# ʻ #?ʻD ʻ ?<<! ?=;ʻ D>ʻ#Bʻ @#!?; 4ʻ?ʻ=?# 8>ʻ #" ʻ=ʻ E ;ʻ#Bʻ ʻ? #Bʻ?!ʻ 88 A =@4D L

% ' " # * 1%

, / + %+ " '

' '*=B

5)

%!?;= # K C (CKK8>?C#?!#B ==C 8; =#?! ?= >

. % &&# # ?!/ ;8 < =#!?;!C;#B ;= ?!#B ;7C#>= !! @# ?=#?#B ;# 4= #B #B D>A?= ;; ; C #?#B ;; <>4= D>#B < #?#B ?C=#; >< >D K 8>= !! @#C 88># ! %B ; !?; #B !# # ?!/ ;B 9 < =#!?;#B <! 8 4= = <?!#B " =A ?< EB?<#B >; K; ! =# +? < " = BC<D8 # =L ;= ?!! ;?!?= K ==>?! F4?;#B F#B K ;# ?!8 !; ==C 8; =# = ==C # !?;?= > ; C = K > D8 E #B =#B " =A ?<X C@ =A#B ==C 8; =# = ==C # K > D8 D>#B ; L #?;= #B 8 ==C 8; =#?;= ==C #>`#?D @?8L 8 @# = K > # ;# < = F#4?= #B?C! = F B < ; = =>=# > ; 4#?B !#>?;! C@B ?88 @#?; B !8 88 KK? =#5 @8 ; =A#B # '`K ; ?= 88D?= = B" E ! EB ; =! !#< =# B !?88?E 4 B B4 D 8> D8 =#B K >< =#?! #B K;?K?;# ?=?! ==C 8; =#?;= ==C #>C# EB ; !# ;= FK>; =A?!#B O A 88?! ?<K;> 9 =A ?;= C @ # ?= 4 =>; #?;?D# = #B K?! ! ?=4 =? K;?K?;# ?=?! ==C 8; =# !8 88 D C 4 EB @B C# !C88 ?!! ;#B ;* !# ? @L @ K#4 = E #B @ ?!#B ! &!# # ? ?;9 = #B !?;! K;?K?;# ?=?! 88 ==C 8; =# = ==C # E #B =#B " =A ?<4 W ?= ?!F !?;= ?= > ; 4 #?D ?88 @# = CK8 !# !;?<#B D #?; 4 ?;?C# ?!#B ;&!# # # #B % ;< ?! ;# < = F# = '?E 88 8 A 88 < #B? !?;= !@? ; =A = *=D; =A =A#B !?; K;?K?;# ?= ?! ==C 8; =# #?D C! !?;= =D; =A =A#B < EB @B ; K; @; D D #B ! ;!# @# ?! . / ;B 9 B ; =# =#B > ; . . = #B ;* !# E #B @ !?; 4 ? 88?@ # = KK? =# #B ! ; # = ; ?!#B !?; ==C 8; =# = ==C # #?D KK8> !?;#B K >< =# = L # ! @# ?=?! #B C< C #?#B ; 88 B ; = DC;AB ?!#B " =A ?<4 !C< 8B =@ 4 ?;K > D>#B <#?#B ; !# !?;@ 4#B D# D =A 8E > =!#;C@# = 8 NC # 4 @L @?; =A#?#B C8 K; !@; D D>#B @# ?!/ ;L 8 < =# =? ==?4 = @8 ; #B # #B K >L < =# ?!#B K;?K?;# ?=?! ==C 8; =#?;= ==C #>? B 88 F?= ;#B D #?;4 ? #B # B B 88 D 8> D8 #?#B ; #?;?=8>!?;! K ;= =#H #B # > ; &F@ K# =A 8E > !;?<#B @#4#B ==C 8; =# ?! 88 C< <?;# ! !?;K ?C C!

%!?;= # ?= 86 K; =# # ?= =/ ;B < =# ?!#B A; # ;= (B>; ?!#B 1 =A ?<

U $ (' #B J @# =A?!#B & # # ?! #B 1 =A ?< ; K; =# <?=A!# ?#B ;A; =@ 4#B # #B < == ;= . -2,8+-"6 31- -%5#-, #B ;; K; =# # ?= = / ;B < =# #?D @?=L ; = ; ; ! =#B !;!# / ; < =#5 = #B # D> = @# J < 7/ ; V K %B ;?= = !; B?8 ;6 4 < >?C#?!8!@ B ; ! = #E??;<?; ?<< 8 ?= ; 4 @@?; =A#?# 8 ;A 9 = !#?; K; ! =# #B <= / ;B < =#5 = EB ; @# ; # ! =# 88 # B =#B 7/ ;8;= J < Z K U ;= (? ; A= O?; = O >4#B 1 =A = 3C = !# @?= ; =A #B 8 ;A = ! F# =# = 8C ?!#B O = B?8 = ?!#B <D>#B D ;?= = !; B?8 ; E #B =#B B ; ! ;< =# ?= #?#B !! @# #B >< >B < ?; NC '; K; =# # ?= = / ;B < =# E #B #B ;?= = !; B?8 ; ?!#B ?#B ;*B ; ?! #B " =A ?<%B ; !?; #B ; !# E #B 9 >@ = @?= =# ?!#B &!# # ?!/ ;B < =#4 # #C# = ?; =#B # = B / ;B < =# < # =A = ?= =# ?= ?! &!# # #?D B?8 = B =@ L !?;#B = B ; !# ;4 #B ;?= = !; B?8 ; ?! #B B ; !# ;< =# ?= B B #?#B ;!?; < ; ; K; ! =# # ?=4 #B =C<D ;?! ?<< ! ?= ; !# ; FK; !# W %B B ; ?! & =DC;AB %E?4 %B B ; ?! =A#?C= %E?4 %B B ; ?! ;E @" #E? %B B ; ?! ?FD<AB #E? %B B ; ?! O = ;" %E?4 %B B ; ?! +C<!; %E? %B (# E ;#;> ?! 1 ;"@C D; AB#?= %B B ; ?! ; %E?4 %B BB ?! (# ;B=A?= %B B ; ?! / ;#B #E? %B B ; ?! D ; = #E? %B B ; ?! ;A>8 ?= %B B ; ?! ! >! #E?4 #B B ; ?! !!?;! ;#E?4 = #B B ; ?! =!; E?= 5 = # B ; D> @8 ; #B # #B @# B 88 # " !! @# =#B = F# ! ?= ?! #B / ;B < =# = = 88 / ;8 < =# = ?= =# ?= ?!&!# # #B ; !# ;

%= ! ?; ?!#B ?> 88 C;;?E

' (& *) &0 +Q 0 + #B 1 =A = 3C = # 4 = #B & # # ?! / ;B < =# @?=! ; =A %B # #B #; 88?E #? C;AB ?! ;?= = A 8 # 4 B #B =?# D = > # !? @8 ; 4 DC# #B # < =>@?=#;? ; ? 8>; #B ; CK?=#?#B A; # K; C @ ?!#B %; ?!#B 1 =A ?<5 = #B ;-b* # ?=L ! ; =A#B # #B ?> ' C;AB D =A?= ?!#B & # # ?!#B 1 =A ?<4 D ; =A F#B K ;# ?! 88 KCD8 @" *<K? # ?= D =A?D8 A #?E #@B E ; 4 DC 8 = < =# =K; ?=8 ?C! E #B L ; 88 ?#B ;?DBA # ?= 4 !?; CKK?;# ?! #B ; L # A? ;=< =#5 *= ?= ; # ?= EB ; ?! %B ; * !# ?> 88 K; @ ! ?; B D> < => ; L K # O E 4 A; =# #?#B <#B K?E ;?! %; E #B = = E #B?C# #B " =A ?< = < == ; !# ; < =# ?= 5 = # D =A<?!# ! ## #B # =?E !# ; !C ' #;> 88 ?! ' !?;< ; FK =# 4 88 @?=#;?L ; D?C# %; B?C8 D @8 ;8> # ;< = 5 %B ; !?; #B ; # = & # # ?! / ;8 L < =#4 # #C# = ?; = 4 #B # #B *<K?;# =A ?! 88 !?;; = ?<<? # = ;@B = ! #B ;D> ?;O = 4 ?#B = B 88 D 8?=A#?#B !; < =

&

*=B D # =# ' ?!' #B ;' # ' ?> 88' DC;;?E '
88 == ;8>' F@ K# =A'@ ## '4 B?; 4 B K' = '?#B ;'
D # ''Q'8 " E ! ' F@ K# =A' C@B' @?<= ? # ' '
=?D8 ## =' = ' D ;?= ' B 88' <K?;# !?;' #B ;' ?E='
C! 4 = ' EB ; ?!' =? ' K ;# B 88' D ' *<K?;# ' !?;'
8 ' = '8 " E > ' #B >' # #C# ' = ' ?; = ' #B #'
#B ' FK?;# =A'B>' '?!' 88'#B '= # ' ?<<? # '
?!'#B ' 1 =A ?<4 ?#B' = ' B 88' D 8?=A'#?'#B '
!; < =' *=B D # =# ' ?!'#B ' ?> 88' DC;;?E 4 ?=8>'
F K#Q A' ?;= 4 ## 884 B?; 4 B K4 < ## ' 4
< = ; 88 ' ? 8 4 8#' 0 < 4 = ' #?= 4 C#' K; L
C @ '#?' ?D8 < =' = ' ;?= ' #?' FK?;# '<C@B'
?!'#B ' ?#B ;' = # ' K;? C@#' ?!'#B ' " =A ?< '
EB #B ;' # K8 ' ?<<? # ' ?;' ?#B ; 4 ' < >'
=!E ; ' #?' #B ' 8C '?!'#B ' ?<<? # ' EB @B'
B 88' D ' *<-K ;# 4 D>'#B <'!?;' ;' ?E=' C! ' '
' 5 ' 8 ? 'DC#' K; C @ '#?' 88' #B '0 A '
#?'#; = K?;#' D>'8 = '?C#' ?!'#B ' " =A ?<' 88' #B '
= # ' ?<=? # '#B ; ?!' = 'B'@ ' =>'K ;L
?= ' B 88' ? ' =' #B ' @?=#; ;' ?!'#B ' K; =#' @#4
#B >' B 88' D 'KC= B ' @@?; =A'#?'#B '# =?;' ?!'
#B ' @#'?!'/ ;8 < =#' < ' A =!#'C=!; '#; ; '
=' 88' K? =# 4 + @"; =A' B ; D>'#B #' #B ' *=B D L
=#' ! C;AB '?!' A 8 # ' = ' ;?= ' = '
#B ; ' B !8' 4' < >'#; ' =' DC> =A' = ' 88 =A'
88' = # ' ?<<? # 4 = '8 " E > ' < >' ; 9'
88' !?;EA= ' ?<<? # ' K;? > =A' #B >'
DC>' #B ' !?;; A= ' ?<<? # ' !;?<' ?< '?!'
#B '!; < =' ?!'#B ' ?> 88' DC;;?E 'B # =A'!@?##'
= '8?## #B ; =' = '=? '?#B ;E > 5' = '#B #'
=?#E #B # = A' ?!'# ' H7 @#' ?!'#B '. ' ?##'
S'/ ; Z B ZS'EB @B' 'B ; D>'; #; @# ' ,K; !8>'
= ' D;?A # ' =' ? ' 88 = ;8>' '#' '=@?=L
=#' E #B'#B ' K; =#' @#5' = ' #' ' B ; D>'
; 4'#B #'#B ' # #C# ' = '#B 'K; 8 A '#B ; L
D>' = @# ' ##' ! ?C; '?!'#B ' ?> 88'DC;;?E ' B 88'
B ' F @C# ?=' =' #B ' < 'E >' = '< == ;' ' '
K; @; 'D>'#B ' !?; < ' H7 @#'?!'#B '.7 ='
S'/ ;8 < =#' ?!' B ;8 ' S 4 F@ K# =A') = ; 8'
0 ## ; ' ;B @D' ; ' B B #A ' ' < ' @#' #B '
#

' %,412+#-%7#' -7-+2!%' -33-+,' "6
?< =A

' ' (& *) &' 0 +'Q' 0 + ' #B
1 =A' = ' 3C = ' # ' ?= ; =A'#B 'A; #'
*= ?= = =@ '#B #' < >' ; ! '#?'#B '0 'D>'
A = ; 88' 0 ## ; '?!' ?;= =A'%B ; !?; '#B ;' 9'
!# \'E #B' @ ' = '@?= =#'?!'#B '#B; '&!# # ('
?!'/ ;8 < =#' ? ' @B ;A ' < ' K;?B D # ' #B '
A; =# =A' ; ! =A' = ' C! =A' A = ; '40 ## ; '?!'
B?;= =A4' F@ K#' !?;' #B ;' # ' =C 4'
= '!?;' = # ; ' # K = 'CK?=' @; # '?!'0?@ 8L
#>5' = ' @8 ; ' #B #') = ; ' 0 # ; 'CK? 9'
@; ## '!?;' K?>= =A' ?!'#B ' A;?C= ' *= >' K;?@ '
'!?;< ;8>

' %' *<K?E ; =A' #B ' /; >' ?C=@ 88' #?'
KC#' #B ' #B' ?!' 88 A =@ ' #?' C K @#'
K ; ?= '?;'#?'! @C; '#B <

% &' 1*)' Q' 3 '&& (' J&(%*&(4' = ' '
#B '&!# # '?!' / ;8 < =#4 # " =A' =#?'#B ;' ?=9'
; # ?= ' = ' ! ?@ # ?= ' = ' @?<D = # ?= ' ?!'
; 88' B AB8 = ; ' = '?#B ; ' *=' CAC #' *7 ' 7'
AB#>' =>= 4 #?' @?=#; DC# ' K;?K?;# ?= ' ?!' =' #?'
CKK?;#'#B '*=# ; #'?!'#B ' 8 # ' 1 =A' J < 4 = '
#?' ! = '#B < 8 ' =' ?KK? # ?=' #?' #B 'K; =#'
)? ;=< =#4 = ' 8>" E > ' =?#B ;' ! ?@ # ?= '
=' J =C ;>'8 #' = ' #B #'#B ; ' ; ' A; #' =@ '
#?' KK; B = '#B #'#B ; ' ; ' ; 88'K ; ?= '#B;?CABL
?C#' #B ' 8C=A ?< ' = ?8 ' = ' =A A ' =' #B '
< ' A= ' %B ; !?; ' !?;' #B ' @C; # ' ?!' #B '
K @ '?!'#B '" =A ?<'%B ;' !# 'E #B' >@ '
= ' @?= =#' ?!' #B ' & # # ' ?!' / ;8 < =#4 +? '
C#B?; W ' = '*<K?E ;'#B 'K; ' ?C=@ 88' #' =>'
< 'D #E F#' = '#B '= F#' ! ?=' ?!' / ;8 < =#'#?'
KC#' #B ' ? #B' ?!' =@ ' #?' =>' K ; ?= ' EB?'
B 88' D ' 8 # '?;' =!?;< ' A =!#'CK?=' K;?D D8 '
A;?C= '#B #'#B >' ; ' @ ! ; '#?'#B '!?; '@?<9'
D B # ?= ' ?;' #?' =>' A= ' !?;' #C;D =A' #B '
K @ '?!'#B '1<A ?< '?;'#?' ?E '#B ;'K ; ?# 4
?;' F @#' B ' '!?;'#B ;' KK ; =@ ' = 'K @ D8 '
B ?C;' C= ;' ; ?= ' 'K = 8# '=?#' F@ L
=A' ?= '> ; '?;'#E?' > ; ' =#' ?!' 0 = '< ='
?;'#B '! !#8'K<#'?!'#B ' 8C '?!'#B ' # # '?!' C@B'
'B '=?# 8 = '?;'#?' ;< ' C@B' C K @#' = '
8 # 'K ; ?= ' = ' ! '#B ;'B?; 'EB @B' F@ '
#B ' 8C '?!'!!> 'KC= ' # ;8 =A

%' =' ! ?C; '?!'#B ' C;AB'?!')8 A?E'
< ' 8 @# =A'?!'# ;' A #; #

' ' (& *) &' 0 +'Q' 0 + '% " 9' '
=A'#?'#B ;'@?= ; # ?= 4 %B #' #B ' @ #>'?!')8 L
A?E4 * ' <?=A!# #B ' <? # @?= ; D8 '?!' #B '
?> 88' DC;;?E 4 E #B ='#B ;' =@ =#' " =A ?< '
?!' (@?#8 = 4 D?#B'!?;'#B ' =C<D ;' ?!' *=B D # =# 4
= '#B ;' =AC8 ;' ! ##= ' = ' KK8 @ # ?='#?'#; 4!'
= '#B '@?= = =#' #C # ?='?!'#B 'K8 @ 'CK?='#B '
;' ?!' 8> 4 = '#B #' #B ' ?<<?='A?? '?!'
#B ' ' #>' B #B' D =' A; #8>' E # ' = ' FL
B C # 'B>' 8 = ; A' # ?C< '?!' <?= >';?<'
A !#; # 'EB?' E ; ' =?#' !; 8>' 8 @# 'Q @B? ='
2,' 'C C ' =' ?#B ;' ;?> 88' DC;;?E 5' = '0 " L
E > ' ?= ; =A' #B '!#;< ' B ; =@ ' = '@?=L
=#'W B'!<7 '/#?# # #' 8 A ?='?!'#B ' ?<L
<C= #>'?!'#B ' '^ #>'%B ;' # ' 'A; =#'
= '!C ' = ' <K8 ' B ;#?C;4 *=' ! ?C; '?!'#B '
' #>' ?!')8 A?E' Q #B ' ?<<?=' ?C= 88'
; ?!4 ?=!#;< =A' 88' !?;< ;' B ;# ; 'A; =#'
#?' #B <' D>' =>' ?!'#B ;' ?> 88' K; @ ! ?; ' ='
! ?C; '?!'#B ' ?<<C= #>'?!'#B ' ' #>4 ?;') 8 '
J #B; <' #; < =' ?;' =>' ? # ' ?;' @? ;

%' & + * ') 4

J ' &' , , **4' 4+ 4 ,

% &' ?88 ' ?!' / ;8 < =#' @ 88

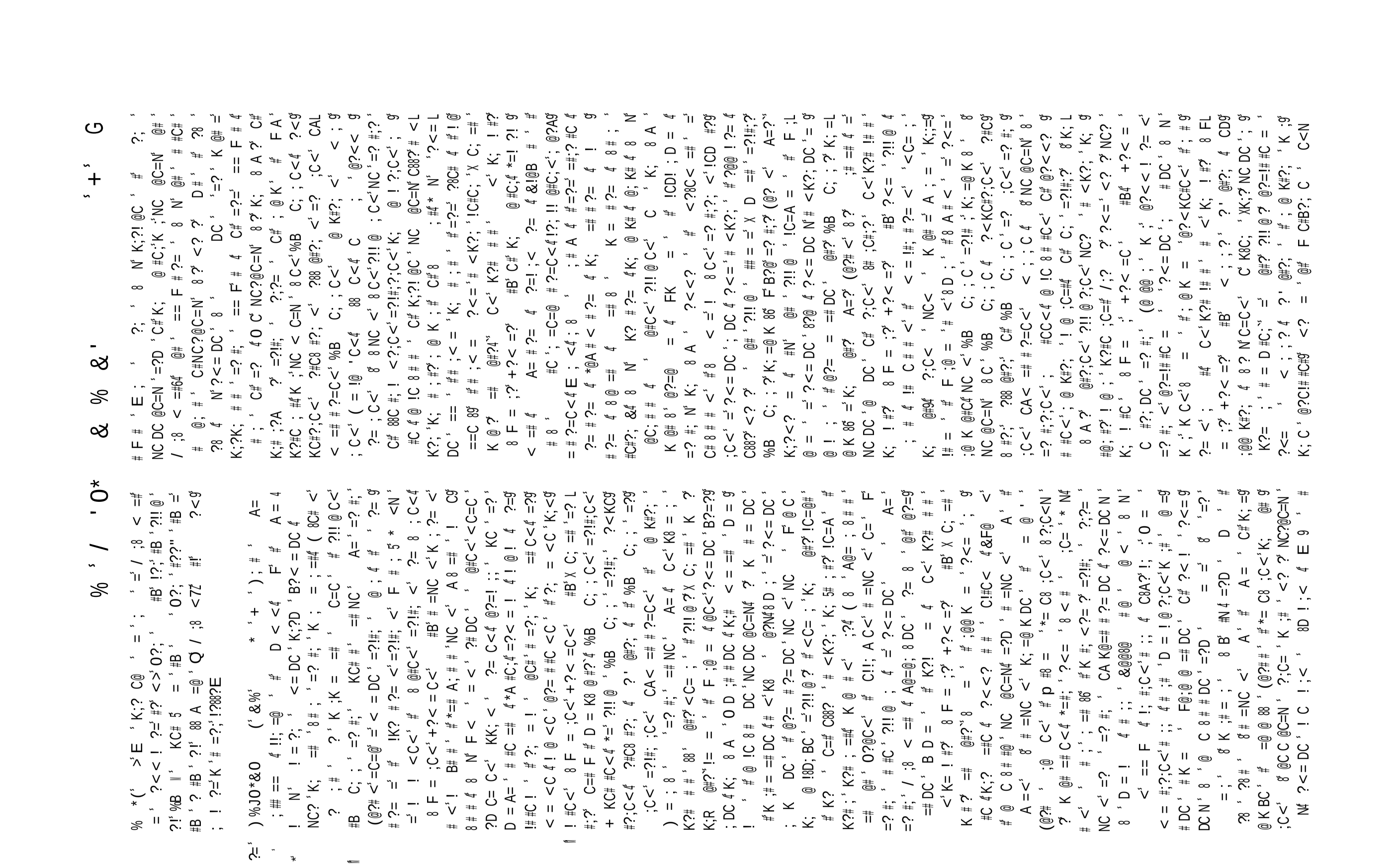
%' = ' + @; #' =' ! ?; ' ?!' ?D ;#' ;
?!' 1 =B 8#' A = #' #B ' ; ' ?!' ;@BD 8
& <?= #?=' ?!' +C=#; #B '

%' & + * ') ' #B ' #E =#>' =#B' >' ?!' '
JC= ' * ' 7' =>=# ' > ; 4' = =#' ' K # # ?= '
A =' =' = ' K; =# ' #?' B ' A; @ ' %B ;' L
# ' B AB' ?<< ! ?= ;' = '#B ' B AB' = ' B?=?C;L
D8 ' ?C;#' ?!' / ;8 < =#' #' #B ' = # =@ ' ?!' ?D ;#'
;' ?!' 1 =B 8#4' A =!#' #B ' ; ' ?!' #B ' @ #'
;@BD 8 '& <?= #?=' ?!' +C=#; #B' (B E =A4' %B #'
N1' #B ' @ #' ;@BD 8 ' & <?=!#?=' ?!' +C=#; #B'
#B ' K # # ?= ; ' ! #B ;' =' 0 E4' E ' <? # C= C!#8>'
!>= ' =' #B ' ?C< ' ?!' !> ' BC= ; #B' KC= ' # ;L
8 =A4' = ' !?;' EB @B' B ' E ' @?<< ## ' K; ?= ;' #?'
#B ' #?8DCJ#B' ?!' & =DC;AB' EB ; ' B ' ; < = ' K; L
?= ;' C=# 88' B ' E ' 8 " ' #?' B '8? # B '8 ! ' D =A'
#' D 8#' DC#' = ' =! < ' = ' # = ;' K ; ?= 4' = '
#B ' K # # ?= ;' D =A' ?!#' ?8 @ # ' D>' == ' 8 = '
(@?## #B =' K?C ' #?' #B ' ' ;@BD 8 ' & <?=9'
#?= ' !?;' #?' ; 8 ' B <' ?C# ?!' K; ?=' = ' #?' K >'
#B ' <?= >' !?;' B <' EB @B' @@?; =A8>' #B ' K # L
?= ;' 4' = ' !?;' EB @B' <?= >' B ' A ' *; B'
@C; #> ' EB @B' ' # =' K ;' =#h' !?;' EB @B' = ' #B '
*=# ; #' #B ; ?!' #B ' K # # ?= ;' # = ' !8 88' D?C= '
#?' P' 2 j' < 8#?= ' + C=#; #B' B ' C=@8 ' =?E'
8 =A' =' & =DC;AB5' = ' =A' #B #' #B ' K # L
# ?= ;' K > ' #B ' !?; ' ?C< ' ?!' !! ' BC= ; #B'
K?C= ' # ;8 =A' !?;' #B ' ; 8 ! ' ?!' #B ' ' ;@BL
D 8 ' & <?=!#?=' CK?=' #B ' @C; #>' !?; 4' = ' !?;'
=A' D?#B' B ' ! B #' = '8 ! ' #' #B ' < !#'; 9'
NC !#' ?!' B ' 0 >4' = ' !?;' EB @B' #B ' K # # ?= ;'
B ' =? ' @C; # ' !;?<' #B ' ' ;@BD 8 ' = ' B '
; ' ; =A' #B ; !?; ' #B #' #B ' ?<< ! ?= ; '
); @ ' = ' &!# # ' ?!' / ;8 < =#4' E?C8 ' ?; = '
#B ' ; ' ?!' #B ' ' ;@BD 8 ' & <?=!#?= ' #?'
< " 'K >< =#' #?' #B 'K # # ?= ;' ?!' #B '!?;! ' ?C< '
?!' !> ' BC= ; #B' K?C= ' # ;8 =A' ?!' K; =@ K 88' E #B'
#B ' ; =#' #B ; ?!4' @@?; =A' #?' #B ' *=# ; !#' =' *; L
8 = ' '#B 'K # # ?= ;' B ' K > ' B < @8! 4' #?A #B ;' '
E #B' EB #' < A ' B ' @ =' *=!#;C@#4' #' D =A' F#; 9'
?; = ; ' FK =! ' #?' B <' #?' B ' ?!#' @?< '0;? <'
*; 8 = ' ?=' #B #' @@?C=#4' = ' =?E' #?' # >' !;?<' B '
@?=@ < ' #B ; ' #' C@B' '#>< ' '#B 4' '#B ' '
K # # ?= ' <?; ' !C88>' D@ ; 5' EB @B' K # # ?= ' D =A'
CK?=' #B ' F#B' >' ?!' JC= ' = # =#' ; ' =' K; =@ '
?!' #B ' ?<< ! ?= ; '); @ ' = ' # # ' ?!' / ;8 '
< =#4' #B >' ' ; < ## #B ' < '#?' ' ?<< ## ' ?!'
#B ;' ?E=' =C<D ;' KK? =# ' !?;' #B ' ?= ; 9'
?= ' ?!' !!>= ' = ' !?; ! C8#C; ' = ' #B ' '
?<< ## ' B =A' CK?=' #B ' =>=#B' >' ?!' JC= '
=88C=#' B ; ' ; ' ! =' = '@?= ; ' #B ' !?;

d ?<< !9'
?= ;' !?;'
;"= >-

2 *00* * *' ; A ' ?!') ; >' ?= ' ?!' #B ' ?<9'
< ! ?= ; ' !?;' #B ' (# E ;#; ' ?!' ;"= >4' #??" '#B '
? #B' ?!' 88 A =@ '#?' #B ;' * # 4' ' 8 ? ' #B '
? #B' ?!' / ;8 < =#

% &* ' * # ' ?<< ! ?= ;' ?C;= '
#B ' / ;8 < =#' # 88' !;> >' #' # =' ' 8?@"' = '
@?=# =C ' 88' < ## ; ' = ' K;?@ ! ' # 88' #B #'
#><



ʻ ʻ ʻ

@ C! ' = 'B '@?=! ! 4 = 'E '8 " E > '@?;= ' =' #B ' 1 =A ' ;@>4 = 'B '#B =' A?## =' =?' ; 9' < ! ?= 4 D?# E ' #B; #= ' E #B' #?;#C; ' !' B ' E?C8 ' =?# K?= ' 'B 'B ' @"=?E8 A ' C 9' @ 88 'D !?; '#B ' / ;8 < =#5 = '#B ' ?#B ;' E #L = ! ' .' %B '0 ; '?!' /B 8 KB CAB' = ') 88?E9' B ' 'K;? '=?#B =A5 = '#B '# # <?= '?!'#B ! ' K ;!?= '#B # E ; ' D! =# #B '#>< ' ?!'#B '#;> 88' ' #B >' K;? '=?#B =A' A =!# #B ' ! ' ⅈ ?D ;# 88 ' =' K ;# @C8 ;' ? '#B ;'# # <?= '@?C8 '=?# D ' C # = ' ' 'K;?D # ?=' ?!'#B 'K; # = ' ;>< ' =' A = ; 864 =A' D>'#B '0 E'#B 'E #= ! ' =' @; L < = 86' @ C! ' B?C8 'D ' C@ ' =' K; =@ '?!'#B ' K ;# ' @@C! ' =' ! @ '?!' JC A < =#5 = ' =A' #' ? ' =#8>' KK ; ' !;?<'#B '!?;! ' ; !?= ' %B #'#B '! ' ⅈ ?D ;# ' 'E ' <? #' C= C!#8>' !>= 4' @?= <= ' Q !?;! C8# 5' = '! =A' B ' E 'D ;D ;?C!8>' F @C# '@?=#; ;>'#?' 88'0 E'JC!# @ ' Q NC #>5' = '#B ' 'K;?@ ! ' ?!' !?;! C8#C; 4' 8>D '4 &F @C# ?= 4 8 =C# 4' *=# ;8?NC #?;4 K?! 9' # ?= 4' ⅈ @# = '! =# =@ 4' B 88' A;?C= ' = 'E ;9' ; = '#B ; ?!4 E #B'#B 'K;?@ ! ' = ' @; #' ?!' ?C=9' @ 88' !?;'#B '!>= 'D =A'; ' = '@?= ; ' ='K8 =' / ;8 < =#' %B ; !?; '%B ;'* * # 'E #B' >@ ' = '@?=! =#' ?!'#B '&!# # '?!' / ;8 < =#' +? 'B ; L D>' !@ = 4' #; # 4' !' = ' ==C8 'K ;' <? C<' C!# # <' #B ' !?; ' @; #' ?!' ?C=@ '4 D>' EB @B' #B '! ' b/' ?D ;# 88 'E '!>= ' ='#B ' ?C< ' ?!' F' #B?C = 'K?C= ' # ;8 =A4 = '#B ' !?;! '

; 4 =>'8 E' C! A '?;'@C #?< '#?'#B '@?=#; ;>'=?#9' E #B88 = =A5 = ' #' 'B ;D>' @8 ; '#B #'#B ' @#' !B 88' =?E > ' ! 88' C= ;' =>' @#' (8 ?' JC; ' #?'D 'K !#' ='#B ' / ;8 < =#4 DC#' 'B ; D>' F@ K#L '#B ; !; 5' = '?; = '#B ' @#'#?'D 'K; =#

%' @ = =A' #B ' $?;! #C; ' ?!' J /' ?D ;# 88 '?!' J ; E??

' ' (& *) &' 0 +' Q 0 + '%B ' 1 =A' = '3C = ' !# ' = '#B ' # # '?!' / ;L 8 < =#' ?= ; =A' %B #'#B ' # =A'?!'#B '&!9' # # '?!'#B '1 =A ?< ' ='#B ' 8 < '?!' AB#4'?!' #B '&8 =#B'?!' K; 8'* j' @P1 AB#>'=>= '> ; ' + @8 ; '%B #'#B '!?;@ =A'#B '0 A '#?' K?= ' A =!#'#B < 8 ' =' K # 86' ;>< 4' B?E ;' '#B 'KC= B< =#' D ' ; #; @# 4' = '#B '*<K? =A' ?!' F#; ?; = ;>' !>= 4' = '#B '@ C =A' K C!C ' = '!?;! C8# K ; ?= ' CK?='!#; #@B ' ?!' ?8 ' = ' ?D!?8 # '8 E 4 CK?='!; ?8?C ' = 'E " 'K; # =@ 4' CK?='8 < ' = ' ! @# ' K;?D # ?= ' ; '@?=#; ; ' #?'0 E5 = ' ?=! ; =A'#B ' @ !#' -b/' ?D ;# 8B '?!' J ; !E?? 'D =A'@?= = 'D !?; '#B ' /; >' ?C=@ 884 !?;'#B ' 88 A@ ' ; ! ## = '@?;9' ; !K?= =A'E #B' =# ;@?<<C= 'K ; ?= ' = ' L @8 ; ' ; D ' 'EB @B' ?!' #' ! 8! 'E ' ' K # 88' ;>< 4 ' #' E '8>D 88 5' CK?='EB @B' B 'E ' B?8 =' '@?=! 884 'E 'D ' @#' ?!' ?C=@ 88' ?!' #B ' #'#B ' >'?!' ^P & AB#> !?C;'> ; '!!>= ' =' F'#B?C = 'K?C= '!# ;8 =A' EB @B'E ' '<? #' F?;D # =#' !>= 'D =A'= ; '#B ' 8C '?!' B 'EB?8 '!# #?' = '@?= ; =A'#B #' # 8 ' ??< ' = ' =# =@ '?!' !?;! C8#C; 'K;?=?C=@ ' A =!#'#B ' ⅈ ?D ;# C 88 'D>'#B '0?; '?!' JC!# @ ; 'CK?='#B ' >'?!' + @ <D ; @ⅈ & AB#>'!?C;'E 'K !#'E #8 ?C#' =>'8 A 88' @ # 9' # ?= 4 B 'D =A'?=8>'@ # '#?' = E ; 'CK?='#E =#>' !?C;'B?C; 'E ;= =A'EB ; 'D '#B '8 E'B ' B?C8 ' B 'B ' '@?<K # =#' #><' #?'K; K ; 'B ' L ! =@ ' = '#?' @ # 'E #= ! @ '#?' B 'K;? ='B ' F@C8K # ?=' = ' ?D @# ?= ' A = # #B 'E #= ! ' = ' 8 >W ; 4 = '#B #' #B ' @;>< 'K; =@ K ' ' 8>D 88 ' A =!#B <'E 'B ' >=@ =A'#?'B ' L D ;; '#B '8 # '1 =A'J < '#B ='+C" '?!' ?;" ' !;?<'#B '!C@@ ! ?=' #?'#B ' ;?C= 4' = '#B #'B ' '< #E #B' ; 88'K ; ?= '#B #'E ; ' 88 A ' #?'D ' @8 ; ' ; D 88 'EB ; ''#B >' '##J #'?!' <?= >'#?'D '!C;= !B '#?'#B '8 # '& ;8 '?!' ;A>8 5 = ' ?= ; =A'#B #'#B 'K;?D # ?= 'CK?='EB @B' #B '!?;! ' ??< ' = ' =# =@ 'K;?@ 'E '8 < ' = ' ! @# ' *='!E '! ;' '?= '?!'#B '#E?'K;? 9' =A'E #= ! ' %' %B '& ;8 '?!' % ;; '#B '#>< '?!' B 'K?= =A'E 'C= ;'K;?@ ! '!?;'#B ' < '@ C! 4' E ' ='K; ?= ' = 'B '@?=! ! ' = '@ < ' ='#B ' 1 =A' ;@>' = 'A?## =?' < ! ?='# ' '' !# ;'B ' K?= 4 EB @B' ?D @# ?='D =A'K;?K?= ' A =!# B <'E 'C= C!#8>'; K 88 'D>'#B 'JC!# @ 4' = '#B ' ?#B ;'E #= '#B #'K;? ' =>'#B =A' .' 8 F = ;' ?=;? '?!' ;@;?!#'E ' ='K; ?= '!?;'#B ' <

??< ' = '! =# =@ '?!'!?;! C8#C; 4' = '#B '#E =#>' !?C;#B' @#' / b < =#' !! ; #' (! ?='! ; #' J < ' #B ' (=#B'*='?'! ;' '#B ' < = ' == F '#B ' 8 = ' = 'D ;;?= '?!' J ; E?? ' = '?#B ; 'K ;9' # = =A' #B ;#?' 8> =A' E #B ='#B ' (B ; ! ?< ' ?!' 0 = ;"4 = '#B ' 0 = ' = 'D ;;?= '?!' ' ;9' # = ' = '!! C= ' = '?#B ; 'K ;# = =A' #B ;#?' 8> =A' E #B ='#B ' (B ; ! ?< ' ?!' ;E @"' #?' #B ' ;?E= 4' = '#B '#B ;# =#B' @#4' (! ?='#B ' @?= ' / ;8 < =#'#B '! ; #' J < '#B ' (=#B4' ! ?8 =A' #B '!?; ' 0 = ' = ' =9?= '?!' * 88 ; # = ' = '!! C= ' ='! ?C; '?!' + C" ') ?; ?C= 4' = '#B ' A !#'?!'!!?;! C8#C; 'A; =# 'D '#B '8 # '1 =A'J < ' %?' + C" '?!') ?; ?C= '?!'#B ' '0 = ?!' * 88 ; # = ' = '!! C= ' = '?#B ; ' # '#B ' >'?!' * ' ^ⅈ & AB#> > ; ' = ' 88' #B #' B '!?88?E ' ?;' < >'!?88?E' CK?='#B ' ' @; #' ?!' ?C=@ 88' ??< ' = ' ! =# =@ '?!'!?;! C8#C; ' @#'?!' / ;8 < =#4) !#' ?!' !!?;! C8#C; 4' = ' @8 ; ' #B ' < = '#?' B ' D ='!;?<' #B ' D A == =A' %?' D '=?E' = ' =' 88' #>< ' @?<@ =A' ? '=C88' = '?!'=?' !#; =#B' !?;@ ' '' =?;' !! @#5 = ' #?; ') ?;A ' 88 ' =?E' ?!' J E?? ' = '#B ' ; !#' ?!'#B '@B 8 ; =' ?!'#B ' ' @@ !#'* ⅈ ?D ;# 88 ' = '#B ;'K? L # ; #>' A =!#' #B ' ' @; #' ?!' /; >' ?C=@ 88' =# =@ ' = ' ??< '?!'!?;! C8#C; ' @#'?!' / ;8 L < =#' = ') !#'?!'!?;! C8#C; 4' = ' 88'#B #' B ' !?8L 8?E '#B ;CK?='D 'E >'?!' JC # @ 5' = ' @8 ; ' *#B ' @#'#?'D ' F@ K# '?C#'?!'#B ' @#' (8 ?' JC; ' #?'D 'K #' ='#B 'K b' < =#

+& &*%' =' ! ?; ' ?!' J < ' (< #B' = =#' #B ' DC 8 =A' ?!' #B ' =?=A # ' @BC;@B

%' &+* ') ' #B ' #B ;# ' >' ?!' JC= ' *I' = '=>=# ' > ; ' = =#' #B ' K # # ?= ' A =' =' = ' K; =# ' #?' #B ;' B8 # ' B AB' ?<< !9' ?= ; '); @ ' = ' #B; ' !# # ' ?!' / ;8 < =#' D>' I' J < ' (< #B4 (B E =A' %B #' EB ; ' #B ; ' D =A' ' ?;# ! @ # ?=' < ' D>' C<NCB 8 ' %B?< ' * C @I' !?;' #B ' DC 8 =A' ?!' ' BC;@B' =' #B '); ! ' < ;" #4' EB @B' <?= >' ? ' =?E' F# = ' #?' #B ' (C<< ' ?!' ! !# ' ?;' F# ' #B?C = ' < ;" ' @?# ' ?;' #B ; D>' = ' #B ; ' D =A' ' K; ! =# # ?=' < ' #?' #B ' !# # ' ?!' / ;8 < =#4 #B #' #' E ' = #B ;' = @ ! ;' 0?;' ?= = =#' #C'DC ' ' BC# B' ='#B #'K8 @ 4 #B >' D>' #B ;' @#' ?!' #B ' # ' #B ' d =# =#B-' >' ?!' d (K# <D ;-' * I ' >@9I AB#>' d?= -' > ; 4 '; < ##' #?' #B ' 0?; ' ?!' B ' !# ' @; #' ?C=@ 8' #?' KK? =#' #B ' ' <?= >' #?' D ' K?! ' ?!!4 ' #B >' B?C8 ' ! = ' @ C! 5 = ' #B ' ' 0?; ' ?!' @; #' ?C=@ 84' ?= ; =A' #B #' #B ' D >' BC;@B' EB @B' E '8?@ 88>' >; #B ='#B 'K; @ =@#' ' 8>9 ?? 9B?C! ' E ' A= ' B ' 8 # ' !#>4 #?' D ' B ' ?E=' B KK 88' = ' =?' 8?=A ;' #?' @?=# =C ' ' K ; !B' BC;@B5 %B >' KK? =# ' ' <C@B' ?!' #B ' ' ?;L # ! ' <?= >' ' B?C8 ' D ' = @ ! ;>' #?' D ' KK8> ' !?;' #B ' DC 8 =A' ?!' ' BC;@B' !?;' #B ' *=B D # =# ' ?!' #B ' =?=A # ' ='#B ' <? #' @?=> = =#' K8 @ ' #B #' @?C8 ' D ' B ' !?;' #B #' KC;K? 4 J ' ' ; @?<L < = '#?' #B 'B =' 0?; ' " . . %6+%"7-+,' ?!' #B '%B 9' C; 4 #?' ' #B ' (< ' ?= ' @@?; =A8>' ' EB ; L CK?=' #B ' ' 0?; ' ' =# ;' =' = ' A; < =#' E #B' #B ' ' K # # ?= ;' #?' DC 8 ' ' BC;@B' ='#B ' =?=A # ' ?=!?;< '#?' '@ ;# =' ? 8' ?;' ; CAB#' EB @B' E ' K?! # # ' ='#B ' B = ' ?!' (;' %B?< ' ?=@; ! ' ?!' #B #' 8" ' 8 ;" ' #?' #B ;' # ' %B C; ?4 ! D;' #B ' DC 8 =A' ?!' EB @B' BC;@B' @?=9' !?;< ' #?' #B ' < ' ? 8' #B ' ! ' / # # ?= ;' E ' #?' A #' #B ' (=<< ' ?!'#E =#>' !> '#B?C = ' < ;" ' !@?# 4 D ' EB #' E ' A ='!?;' KC;@D ! =A' #B ' A;?C= ' !?;' #B ' ' BC;@B' = ' BC;@B9> ; ' = ' @@?; =A' #?' #B ' ' A; < =#' #B ' 'K # # ?= ;' ' ! #' D?C#' #B ' E?;" ' E #B' 88' #B ' @ ; ' = ' 8 L A =@ ' K?! D8 4 ? ' ' #B ' < ' ' KK ; '#?' D ' @?< ' 'A; #' 8 =A#B4 > #' @?= ; =A' #B ';??! ' = ' * !" ' > ; ' >" ' = ' ?#B ;' #B =A ' C=! = B ' #B ; ' E?C8 ' B ' D ='!?C;#B' K ;# ?!' #B ' E?;" ' #B ='#?' ? 4 8D #' #B ' K # # ?= ;' E ' D8 '#?' =9' !#;C@#' #B #' #B ' EB?8 ' K; @ ' E ' 8; >' FK = ' CK?=4 < # ; 88' = ' E?;"< =' D ' B ' ?E=' K = ' = ' #B #' #' E '=?#K?! D8 ' !?;' =>' < ='#?' ? ' #' @B K ;' #B ='B ' 4 @?=; ; CA' #B ' C!! L @ =@>' ?!' #B ' E?;" Z = ' B 'D =A' @?=! =#' #B #' #B 'A; #' ?C;#' ?!' / ;8 < =#' X*=' EB? =' 'K; =L @ K 88>' ; @ ' #B ' ?D 8 ' ?!! @ C<' ?!' =A' JC L # @ ' ?= '#?' 88' < =' = ' EB?' B 'K?E ;'#?' 8 F ' !;?<'#B ' C8 ' ?!' ?<<?=' 0 E' EB =' NC #>' ; L NC ; ' #B ' < `4 E?8 ' =?#' C!! ;' =>' < ='#?' D ;C = ' D>' #B ' C= ;# " =A' ?' K ?C ' ' E?;" ' =A' #B ' <?;# ! @ # ?=' E ' C!! @ =#' #?' !; >' #B ' EB?8 ' B ;A 4' = ' #B #' ' @?=! ; B8 ' K ;#9' ; < = ' #?' D ' <K8?> ' CK?=' ?< ' ?#B ;' K ?C ' C ' = ' #B #' #B ' K # # ?= ;' E ' D8 ' #?' < " 'B ' 8?! ' =#8>' KK ; ' CK?=' #B ' A;?C= ' !?88?E =A' *9 X <?' D>' ; ?= ' ?!' #B ' D = ! ' ?!' #B ' A;?C= ' XEB @B' B ' @?C8 ' =?#' !?; ' B ' E ' = @ ! # # '#?' !?C= '#E 8 ' !??# K ;' '#B ' <? 8' E ' EB ; L D>' #B ' A; < =#' E ' < ' EB @B' #' #B ' @B K !# #B #' =>' E?;" ' @?C8 ' D ' E;?CAB#' =' & =DC;AB' E?C8 ' <?C=#' #?' #B ' ?C< ' ?!' ?= ' #B?C = ' Q' AB#' BC= ; #B' KC= ' !@?# Z S7' %B #' #B ' # ;=D ;' =@ ' #B ' A; < =#' B ' ; ! =' =' #B ' K; @ ' '!C88' #B ; ' = ' <?; ' ?@@ ! ?= ' D>' #B ' E ;' EB @B' E ' =?#' C= ;' @?=! ; # ?=' #B ' # < ' ?!'#B ' A; < =#4 EB ; D>' #B ' K # # ?= ;' E ' ' 8?! ;' =' CKE ; ' ?!' ?= '#B?C! = ' Q' #E?' BC= ; ' KC= ' (@?#' <?= >' *8)I' %B #' D>' #B ' ?=#; @#' #' E?C8 ' KK ; ' %B #' =' #B ' A; < =#' < ' E #B' #B ' K # # ?= ;4 #B ; ' E ' =? ' < =# ?=' < ' ?!' @ !!?8 =A' #' D =A' 8L #?A #B ;' !?;A?#4 EB @B' E ' ? ' @?= ; D8 ' X#B ' ! D; @"' D =A' ' BC;@B' EB @B' B ' =?' J?>!# =A`' %B #' #B '# <D ;'?!'#B ' @ !!?8 =A' 8?= 'E #B' = 88 ' = ' E?;"< = B K' ' # = ' B <' #B ' ! 'K # # ?= ;' #B ' !C<' ?!' ?= ' #B?C! = ' Q' #E?' BC= ; ' KC= ' (@?#' <?; ' ' =>' " 8!C '' < =' E?C8 ' 8C ' #B ' # <D ;'#?' D ' E?;#B' EB =' #B ' E?;" ' E ' ?= ' = ' = ' = ' #B #' #' E ; ' B ; ' #?' < " ' ' %; L < =' 8?! ' ? ' <C@B' D>' = ' ? ; AB#' =' ' ;A = ' U ' %B #' D>' #B ' A; < =#' #B ' #E?' ?E ' ?!' K88< !' E ; ' ?=8>' #?' D ' ?CAB' !#?! ' = ' K8 !# ; ' ? ;' C#' =' ; K @#' #B #' #B ' < " =A' #B <' ? ' E?C8 ' B ' ?@@ ?= ' #B ' K '8 ; ' #?' B 'D =' ? ' / ' #B #' #B >' E?C8 ' B ' ; = ; ' ' A; #' K ;#' ?!' #B ' BC;@B' C! 8 ! 4 CK?=' @?= ; # ?= ' EB ; ?!' #B ' K # # ?= ;' E ' K ; E '#?' < " ' 88' #B ' K 88 ; ' ?!' = #' B E =' 0?;" 5 ' 8 " E ! ' #?' < " ' ' B = 9' *D< ' B E =' &> #;>' !;?<' #B ' !#; #' #?' #B ' BC;@BL > ; ' XEB @B' D>' #B ' ?=#; @#' B ' E ' =?#' ?D8 A ' #?' ? ' D?#B' EB @B' < AB#' B ' F# = ' #?' #B ' ?C< ' ?!' = ' #B?C = ' KC= ' (@?#' <?= >5 (? ' #B #' B ' E ' D8 '#?' <?=!#; # '#?' =>' EB?' B?C8 ' B ' KK? =# ' #?' =NC ; ' =' #B ' < ## ;4 #B #' B ' E?C8 ' D ' CKE ; ' ?!' !> ' ?;' F' #B?C! = ' KC= ' (@?#' <?= >' 0?! ;' CK?=' #B ' EB?8 ' D ;A =' EB @B' E ' C!! =#' #?' D; " ' ' = =' ?!' ' A; # ;' !#?@"' ' ;' B ' B 5' = ' #B #' B ' <C!#' B ' C! ' !C;#B ;' = ' ;AC< =#' #?' = C@ ' #B ' ! ' B?=?C;L D8 ' ?C;#' #?' K ' B <' JN!# @ 4 EB @B' E ' %B #' 8D #' B ' B ' D ='! ; '' > ; ' =' A?? ' <K8?>L < =#' = ' =A A ' =' < =>' D ;A = 4' #' E ' #B ' ! ;!#'#>< ' #B #' ;' B ' @8 < ' =>' <?; ' #B ='B ' ! ;!#' A; < =#' =?;' E?C8 ' B ' B ' D AC=' #B =' !' B ' 8?8 ' B ' =?#' D =' ? ' A; #' #B #' B ' E ' =?#' D8 '#?' C!# = ' #5 = '#B #' ! ; ''?!'#B ' ;# @8 ' E ; ' C@B' ' < AB#' D@' ; @? ; ' D>' #B ' ?; = ;>' @?C;! ' ?!' 0 E4 ' D =A' #B =A ' K;?! # D8>' ?= ' ? ;' = ' D? ' A; < =#' %B ; !?; ' ; =A' B ' 8?! ' #?' D ' K > ' ?C# ?!' #B ' '; <= =#' ?!' #B '!?;

<?;# ! <?= >? ?; =>? ?!? #B < <D ;? ?!? #B ! !# # ?!? / ;8 < =# #?? D KK? =# #?? F < = #B ; #>? ?!? #B A;?C= D? ; K; ! =# = #?? ; K?;#5? %B #? #B ;? 8 B AB? (< ! ?= ; A; @ = B?=?C; D8 <D ; ?!? / ;8 < =# < AB#? ? #B ; =? #B >? !?C= C !#5? #B ! K # # ?=? D ; 5? 2 B @B? K # # ?= E CK?=? #B # =#B? >? ?!? JC= *=!# =#? ; < ## B>? #B ;? 9? !# &!# # ?!? / ;8 < =# #?? #B ?< < ## KK? =# !?;? @?=#; ;# 8 @# ?= 5? = #B ! ?< ## B =A? KK? =# ! ; 88? #; !< =? !< #B E; AB# < ?= @8 # ; #B ;? #; E? !# < # ?!? #B ! D; @"? ?!? #B ! " ;" ?!? #B =?=A # = #] K ;# = =# @ #B ;? D AC=? ?;? #?? D @?<K8 # 5? = #B ! #; !< =? B =A? CK?=? #B #E =# AB#? >? ?!? #B <?= ?!? JC= = # =#? @?<L K ; K ; ?= 88 D !?; #B ? ?< < ## Q CK?=? ? #B? A =? =? #B !?;! # < # C= ;? #B ;? B = 5? = #B ⅈ!?;! ?< ## !?;? @?=#; ;# &8 @# ?= #?? EB?<? #B ! K # # ?=? E ; < ## B =A? @?= ; #B ? K # # ?= E #B? #B ? #B = ? K? # ?= ?!? #B #; < =? Q ?#B ;? E?;"< =? KK? =# D #B ? K # # ?= E ; Q? #?? D ?= !?;? @?<K8 # =A? #B ? BC;@B? = BC;@B? > ; = #?? K;? #B A;?C= < =# ?= =? #B K # # ?= 4? = 8! B =A? @?= ; #B K; @ K#? ; E =? D #B 0?; D< ! ?= ; ?!? #B

#B K # # ?= ;? B?C8 D @ ;= = @8 ; #?? D K > #?? B <4? ?;? #B ?C< ?!? F? #B?C = KC= @; D>? B <? =? B K # # ?= K; ! =# #?? #B / ;8 < =# !?;? !; > =A? #B = @ ! ;? FK =! ?!? #B DC 8 =A? = #?? " K? #B K # # ?= ;? !;?< #B A; # 8?! B < >? C # = #B ; D>? ?C# ?!? #B ; < = ;? ?!? #B ?C< <?;# ! D>? J ! 9? @ !# %B?< C 4? = KK? =# D>? #B @# ?!? / ; >? ?C=@ 88? < =# ?= =? #B K # # ?= !?;? DC 8 =A? ?!? #B BC;@B4? #B ; K?;# ?!? #B !?; ?< < ## !?;? ?=#; ;# &8 @# ?= =? # 8! <?; !C88 @?=# = = #B !?;! K # # ?= E #B? #B ; K?;# = =!#;C@# ?= #B ; ?!? D =A? CK?=? #B > = # ?!? #B ;? K; ! =# ; =? #B K; =@ ?!? #B ;? !# B AB? < ! ?= ;? = !# # ?!? / ;8 < =#4? = #B >? B =A? @?=L ; #B !?;! ; K?;# E #B? #B A;?C= Q E ;9† ; = EB ; CK?=? #B < =? K;?@ = D =A? #B ;E #B? E 88? = ; K 8>? >! %B ;? # = &!# # ?!? / ;8 < =# !?;! @ ;= = ?; = = B ; D>? @ ;= = ?; = #B ?C< ?!? F? #B?C = KC= (@?# <?= >? #?? D K > #?? #B D? = < K # # ?= ;? ?C# ?!? #B ?C< <?;# ! D #B @ !# %B?< C9? =? < == ;? D? < =# = #B # D>? = ##?C;? #B ?C< @?=# = =? #B K; @ K# ; E= D #B 0?; ?!? #B ;? !# %B C; ; CK?=? #B %?E=? ?!? & ⅈ =? ! ?C; ?!? #B K # # ?= ;? !?;? DC 8 L =A? ?!? #B D? < =# BC;@B? = BC;@B? > ; >" = ?; = 8 ## ; ?!? B?;= =A? #?? D L ; @# B ;CK?=? =? !?;< ! #;

%? @?=@ ;= =A? #B ## =A? ?!? #B (! ?=? = *=! ; ?;? ?C;#

% &? 1*)? G? 3 ' && (? J&(%*&(? = S. #B & # # ?!? / ;8 < =# @?= ; =A? #B # # E 88? =?# D @?= = =# =?E? =? #B #>< ?!? #;?CD8 !?;? #B 0?; ?!? ! ! ?=? #?? ! ## @?= # =#8>? = K;?@ =? 88? K;?@ ! EB =? #B 0 A ; = @ ! ; 8>? ;# !;?<? ## = =A? #B # JC @ #?; %B ; 9? !?; #B >? ? C#B?; W = *<K?E ;? #B 0?; ?!? (! ?= #?? < # ?=? #B ! > ?=8>? EB =? #B / ;8 < =# ? =?# ##4? = #?? K;?@ =? !@C! 9? =A? ?@ # ?= 4? (C K = ?= <? =A CL @ # ?= 4? & @# ?B = ; @ =# KC 8A = @ C! 8 < =# ; = > =A? ?!? @?=@8C @ C! 89? 8 == ;8>? = ' ?E =! ; ?;? ?C;# #?? ## = K;?@ =? K;?@ ! @?<K # =# #?? D @?A=?!@ D>? #B <

< #?? #B ?C=@ 88? =? ! ?; ?!? J <) ?; ?=? = =#) C=? K?E ;? < 8=

% &* ! # ?<< ! ?= ;? ?C< #B / ;8 < =# # 88? #?? <?;;?E? #? =? @8?@"? = @?=L # =C '? @ C! = K;?@ ! # 88? #B #? #><

?!' / ;8 < =#' B ; ' %B ;' !# ' B AB' ?<9' < ! ?= ;' = '* '& # # '?!' / ;8 < =#' < ##' #B ' @ ! '?!' ⅈ ? ; @"' ⅈ" =W 'K # # ?= ;' = =#' #B ' !?;! C8#C; '?!'+ 8 == =' #?' #B ' @?= ; # ?= '?!' #B ' ?<< ! ?=' =?< = # ' ='#B ') = ; 8' @#' ; 9' @ ! ?;>' ?!' !!>= ' = '!?; ! C8#C; 'E #B'K?E ;'#?' #B <' #?' B ; ' #B ' K ;# ' @?=@ ;= ' #B ; = =#' = ' #?' ; K?;#' #?' #B ' = F#' ! ! ?=' ?!' #B ' ?;' =>' ?#B ;' =!C =A' / ;8 < =#

8+ ',+*' & '1 *'+,' 3 - 6' .'5 6 ' +',+)+ E' 6 , + ',+*' , ' .' /* ,+ +*

*J & %' %B ' K # # ?= ' A =' =' Q' K; =# '#?' #B ;' !# ' B AB' ?<< ! ?= ;' Q' #B ' #B; ' # # ' !' / ;8 <[' J?B=' & ;8 ' ?!')8 =@ ;= ' (B E =A' %B #' EB ; ' #B ' K # # ?= ; ' ! #B ;'B 9' =A' ! ; 4' 1 =A' B ;8 ' #B ' ! ;!#' = ' #B ; !# ;' 1 =A' B ;8 ' J ' ! @K= ' C=# 88' B ' E ' < ' K; L ?= ;' D>'B ' ' !C;K ;' *='EB @B'@?= # ?= 'B '@?=# L =C ' # 88' B ' ' E ' ; #?; 4' EB?' =' ; ! =# 9' < =#'?!'B ' ; @ ' = ' (C!! ; =A ' A ' B <' 'K; L @ K#' ?!' & AB#' %B?C! = 'K?C= ' # ;8 =A' EB ; ?!' #B ; ' E ' =?'K >< =#' < ' = ' !# ;'DC' ! # ' ?!'#B ! ' =' ;< ' #' ?#BE 'D; A 'D>'#B ' +C" ' ?!' ?=<?C#B' ')?< ! ?=' D =A' A =' #?' #B ' 0?; ' ?!' %B ! C; ' #?' ! 88'#B ;'!?; ! C8#C; '%B ' K # # ?= ;' E 'K; 8 ' E #B'#?'DC>'#B '!?; ! C89' #C; '?!') 8D ;#' ⅈ1 8E; #B'?!' + =<C;@B 'Q' ?< ' ?#B ' !8= 88' B ; #?; ' 88' =?#' <?C=# =A'#?' '#B?C9' ! = 'KC= ' @?#'K ;' ##=C<5' = '!?;'EB @B'#B ' K # # ?= ;'A 'B 'D?= '=?#' ?CD# =A' ='#B 'E?; #' @ ! '#?' A #' #B ' < ' 88?E ' =' #B ' AB#' %B?C9' ! = 'K?C= ' # ; =A' C '#?'B '! #B ;5' C#' B 9' =A' ; !C ' #?' @?=@C=#7' =' D;?A # =A' . ' K = 88' 8 E ' A =!#'K K !#'!! ; #'B 'E '!?;@ '#?'K >'#B ' !?C< ' @?=# = ' ='B 'D = 'A ='!?;'#B '!?; L ! C8#C; 'Q' #B ='B 'E 'KC#' ?!' 88' KCD8 @"'#;C!#4' = 'B 'K = ?=' !@B A '%B 'D =A'#B 'K # L # ?= ; ' @ ! ' *#' E ' BC ' D8>' ; K; ! =# ' #?'#B ' (< ! ?= ; '); @ ' Q' !8 # ' ?!' / ;8 < =#' #B #' B 'B =A'CK?='. '! #B'?!'. 'KCD8 @"'8 E '?!'. ' R,$/+ 'D?CAB#'#B ! '!?; ! C8#C; 'E #B?C#' =>' 8C@; # ' ! A= DC#' ='!? '! ;'#?'D 'K > '?!'#B ' !?; ! ' D#' = '> #' E #B?C#' A ## =A' B?E =@ ' ?!' =>'K ;#' . 'D =A'= @ ! # # '#?'K >'#B ; !?; ' D @ C! ' . 'K # # ?= ;' ; !C! '#?' @?=@C ;' =' D;?L A # =A'- 'K = 88' 0 E ' EB @B' =?E' B 'B ' ?' B KK>' = ' !! @#' '#?' D;?A # '#B !#' ; 8 ?= 'EB @B' 2 ' BⅡD>' ! A= '#?'D ' !# D8 !8 ' *#'E ; ' D? ' < !C; ' B ; ' #?' K;> ' \ 'K # # ?= ;Ⅱ = '#B ! ' B =A' ; AB#' !;?<' B <' ?!' #B 'D = ! # ' ?!' #B ! ' !?; ! C8#C; ' !? ' *==?@ =#8>' KC;@B ! 5' = ' !?;' EB @B' B 'E ' !? ' < 8 @ ?C!8>' !?;@ '#?' K >'5' #B 'K # # ?= ;'E '=?#'#?'?KK?! '#B 'A = ; 88' < ;@>' =# = '#?'#B 'K ?K8 'EB?! ' < !?;#C= ' !' 2 '#?' D ' !?;! #' (? ' B ' @?C8 '=?#'B ' ? 'C=< ;@ !C '#?' B <! 8! ' ' =?#'#?' KK < 'EB Z 'B < 8! ' ? ' = ;8>'@?=@ ;= ' ' ='#B 'A = ; 88' @#'EB ; ' #B ' ! ') 8D ;#' E; #B' = '#B ' ?#B ;' K ;!?= ' EB?! ' !?;! #C; ' E ; 'A !# '#?' B <' ; '=N< = 9' # <' =! ;#' = ' ! =A'#B '?#B ;' >' ='#B '@ ! '?!

(E =#?C= 'Q' 0 C ; 8 'EB =' #' E '@ ;;> 'D>' ?# ' #B #' #B ' !?; ! C8#C; ' < AB#' D ' ; !@ = ;' E #B?C#' @ 88 =A' ?= #?; ' *#' E ' @8 ; '#B #' !' +?= #?; ' E?C8 ' KK ; ' #B >' B?C8 ' B ' B ; ' = ' #B ' K # # ?= ;' D =A' ; >' E #B' B 'K;?; '!?;' #B #' = ' = ' #' D =A' #B ' < = ' ?!'#B ' / ;8 L < =#' =A'#B 'K # # ?= ;'E '=?#'#B ='B ; '#B #' B ' '=?#'#?' D 'K; C A 'D>'#B '!?; 'A = ; 88' @#' 8#B?'#B 'K ;!?= ' = < 'B 'K ;# @C8 ;8>'#B ; =' < =# ?= ' ' ; !#?; 4' C=# 88'#B ;'@ ! 'B 'K ;# @CL 8 ;8>' @?=! ; 'D>'#B ' ?<< ! ?=' @?=# = ' ='#B #' @#' Q' ; K?;# ' #?' #B '= F#' ! ?=' ?!'#B ' ?;' =>' CD NC =#' / ;8 < =#' #B #' #B >' < >' # ;L < = '#B ; =' @@?; =A'#?' C # @ ' %B ; !?; 'BC<L D8>' ; =A' %B #' #B ' ?<< ! ?= ; '); @ ' Q' B?=?; D8 '&!# # '?!' / ;8 < =#' ' = ' =@ 'Q' < <?; 88' ?!'#B 'K # # ?= ; ' =?#' D =A' K; C A ' ?;'#B ! 'EB?' B '; AB#' !;?<' B <' D>'#B 'M $ '" @#'=?E'#?' D 'K !#'E?C8 '; < ##' ='*K @ 88'#B 'K 9' # ?= ; ' @ ! ' = =#' #B '!?; ! C8#C; 'A !# '#?' B <4' #?'#B ' ?<< ! ?=5' %B #'#B >'< >' ; K?;#'#?' #B '= F#'! ! ?=' ?!' / ;8 < =#' ?;' =>'?#B ;' CD L NC =#' / ;8 < =#'*='@ ! '#B 'K ; ?= ' KK8>' '#B ' ! 'K # # ?= '!C88>' D ; ' 2 B @B' / # # ?= ' D =A' B ; ' Q' @?=! ; 'D ' #B ;' # ' ?<< !L ?= ;'Q'#B ' # # '?!' / ;8 < =#' !?;! 5'%B >' ; L < ## 'Q' ? 'B ; D>'; < ##'#B '@ ! '?!'#B '& ;8 '?!')8 = ?;= 'K # # ?= ;' = =#' #B '!?; ! C8#C; ' #9' ' =' B ' ! ?C; ' #?' #B ' @?=! ; # ?= ' ?!' #8 '

< ?=' =?< = # ' =' # ') = ; 88' @#'; !@ ! ?;>' ?!' !>= ' Q' !?; ! C8#C; ' E #B' K?E ;' #?' #B <' #?' B ; ' #B ' K ;# ' ?=@ ;= ' #B ; = =#' = '#?'; L K?;#'#?' #B '= F#'! 8 ?=' ?!' #B ' ?;' =>' . ' =!C =A' / ;8 < =#' 4

% &* ' # ' ?<< ! ?= ;' ?C< ' #B ' / ;8 < =#' # '' #?' <?;;?E' #' $' '@8?@"' = ' @?=# =C ' (' < ## ; ' ; ' K;?@ ! ' # 88' ' #B #' #><

%' &+* ') 4

)1A'9R' ')])

% &' ?88 '?!' / ;B < ; #'@ 88

%' !?;' # # ?=' ?!' ' = ; # ⅈ ? A ' ' ; ' (@B??88

' ' (& *) &' 0 +' Q' 0 + ' %B ' S ' 1 =A' = '3C = ' # ' = '#B '#B; ' & # # ' ?!' / ;8 < =#' @?= ; =A' B?E' = @ ! ; ' #' '!?;' #B ' =@ < =#' ?!' 8 A ?=' = ' 0 < =A' = ' !?;'#B 'A?? '?!'#B '4 BC;@B' = 'K @ '?!'#B ' 1 =AL ?<'#B #'#B 'C= ; # ' @? ' A ' = ' @B??8 'D ' K;? ' = ' ; 'E #B' K ?C ' D8 ' = 'NC 8 ! ' K;?! ! ?; ' K; =@ K 8 ' A =#' < # ; ' = ' ?#B ; ' B ; =A' ?!! @ ' #B ; =' 2 88' !! @#' '#?' #B ;' L # ' = ' #B ' # D8 B 'A? ;=< =#'?!' BC;@B' = '(# # '%B ; !?; '#B<;' # 'E #B' >@ '?!

?;= 8 C ' = ; ?= ' # 8?;' =' ;' J < ' 8 "9' E?? ' ; =# #?' J?B=' ;?C= ' =' / B = @"' K ; ?@B' 2 88 <' 2 8 B' =' #B ' K ; ?@B' ?!' 1 8K #; @"' J?B=' \@NC8 ' ?=' #?' J?B=' H@?C8 ' =' ?;! ! ;= 4' J < ' C ;B ' =' #B ' K ; ?@B' ?!' *;?=A; >4' K# =' = ; E' ;=?#4' ?;' J?B=' * C88?@B') =' L < 8#?=' =' C8 8 ' =' ;8?C@"' K ; !8 4' B; !# 88' (#; =A' # == =# =' 1 88D;> 4' J?B=') ?; ?C= ' D;?#B ;' #?' #B ' ' J?B=4' J?B=' / ;" ;' E 8" ;' #' 1 888 ;> ' K ; ?@B4' J?B=' ?!' ' =' C@B8 = 4' J < ' < 8#?C= ' # =L = =# =' 1 ## <CB9 ' J?B=' (B 88 ' =' % #E?? 4' \ 8 F = ;' ?D ;# ?= 4' J?B=' 2 8!?= ' =' ?; @"4') ?;A ' ; C!?; ' =' C<=?@"' J?B=' 0 = >' =' & =Dm' J?B=') ?; ?C= ' =' #B ' K ; ?@B' ?!' *;?=A; >4' \ CAB' m 88' %B?< ' 0 ==?F' <KB; ' ?89' NCB?#< ' 8KB' (B 88 ' 8? #B ;' =' ;4' 2 88 <' / =' < ;@B =# #B ; 4' J?B=' 2 ; ;?K' < ;@B =# =')8 A?E4' ?D ;# D= 88 =' J?B=' 2 8!?= ' =' #B ' K ; ?@B' ?!' 1 8K ; 4' C=A? ' 1 K ' =' & = 8 ' ?88?= '' J < ' 2 88 @ 4' ?;' J? KB' 0 ;<?=#B' ' @ 8 88 = ' ?!' ; @??D4' P' J?B=' 2 8!8 4 \ J < ' (< #B' / #; @"' 0 !#?C=' =' 8 ;4' 2 89' B <' 0 !#?C=' B ' ?=' 2 88 <' /?;# ;! 8 ' ?!' 3C ;9' ; 8#?C= 4' 2 88 <' C ; ' ?!' 8 E 88' J?B=' 8 L E 88' ?!' 8 E 884>?C=A ;' ?D ;# & ;' ?!' 1 ; 8 = ' >?C=A ' \ J?B=' C= =AB < ' ?!' 8 = ' 8 FL = ;' /?;# ;! 8 ' D;?#B ;' #?' 3C ;! 8#?C= ' FE 88' >?C=A ;' ?!' ?=; !! 4' @ 8 88 = ?!' 8< A ;#B =4' ?D ;# ==?=' ?!' ?= ;?A #' >?C=A ;4' ?D ;# B 8< ; ' ;?#B ' #?') A ;#B4' \ ) D; 8' (<K8 4' \ J?B=') C#B; ' \ 8 FL = ;' / =4' 7 2 88 <' #@B4' #\J?B=' < @"9' B ="\ 4' / #; @"' < CAB#' =' C<=?@"' \ J?B=' 1 =A4' P' J?B=' 1 4' = ; E' (E?;!' %B?< ' ;?C= 4' J?B=' 2 884' J?B=' 8> 4' J < ' 2 ?? 4' / #; @"' @ ?# A '' ?!' #!; C@B4' \ 2 88 <' = ' 8 F = ;') ?; ?C= ' 8 ;' = '>?C=A ;' ?!'& ;8 9' #?= 49' P' 2 88 <' !! ;A @ ' ?!' 1 #8?@B4' J < ' H) ?; ?C= ' ?!' ; B8 >'>?C=A ;' / #; @"' +C<D ;' >?C=A ;' ?!' @B <? ;4' 2 88 <') ?; ?C= ' ?!' C8 == =4' J?B=' 88' ?!' 2 B># > 4' J?B=') D9' ?= ' ?!' C@B =@B >= ' ') D ?= ' >?C=A ;' ?!' *=A8 #?C= ') ?; ?C= ' !' C= C@B) ; ;' ?!' 8A?C; ' (< #B' ?!' 1 8;?> @@8 88 = ' ?!' 8< A @B =4' %B?< ' ?A8 ' ?!' ?A8 B?8 4' J < ' ; ' ?!' C=A ?=B '') ?; ?C= ' ?!' ; A ' 0 ==?F' ?! *;8 = #?C= ') ?; ?C= ' ?!' @@B ;;?E 4 J?B=' !!C ' ;#?C= ' ?!' C@B =B 4' + ' @@C88?@B' ?=' #?' ; E 884' 2 88 <' 2 B># B ' ?!' 8= 9' B?C! ' J?B=' 2 8 B' ?!' ?;=8 4' 8!?= ' ?! ?; @"' ?D ;# \@8 = ' ?!' ;!@??D4' (<C 8' \ 8 88 =' B ' D;?#B ;' !!C88 ;#?C ' ?!' #B ;9' <>8= 4') ?;A ' \" ;#= >' ?!' 8 " #) 19' ?C= ' ?!') ; ; 4' 8 F = ;') ?; ?C= ' ?!' 1=?@"9' A; >' \ ;;?=' ?!' 0 ##8 K ;" ') ?; ?C= ' ?!' ?8< ') ?; ?C= ' ?!' ;D ;;5' J?B=' 9' = CAB#' ?!' C8NCB ' / #; @"' C; ?@B' 8 ' 0 ; ' C; ?@B' == =A' ?!' + 8 == =' ?;

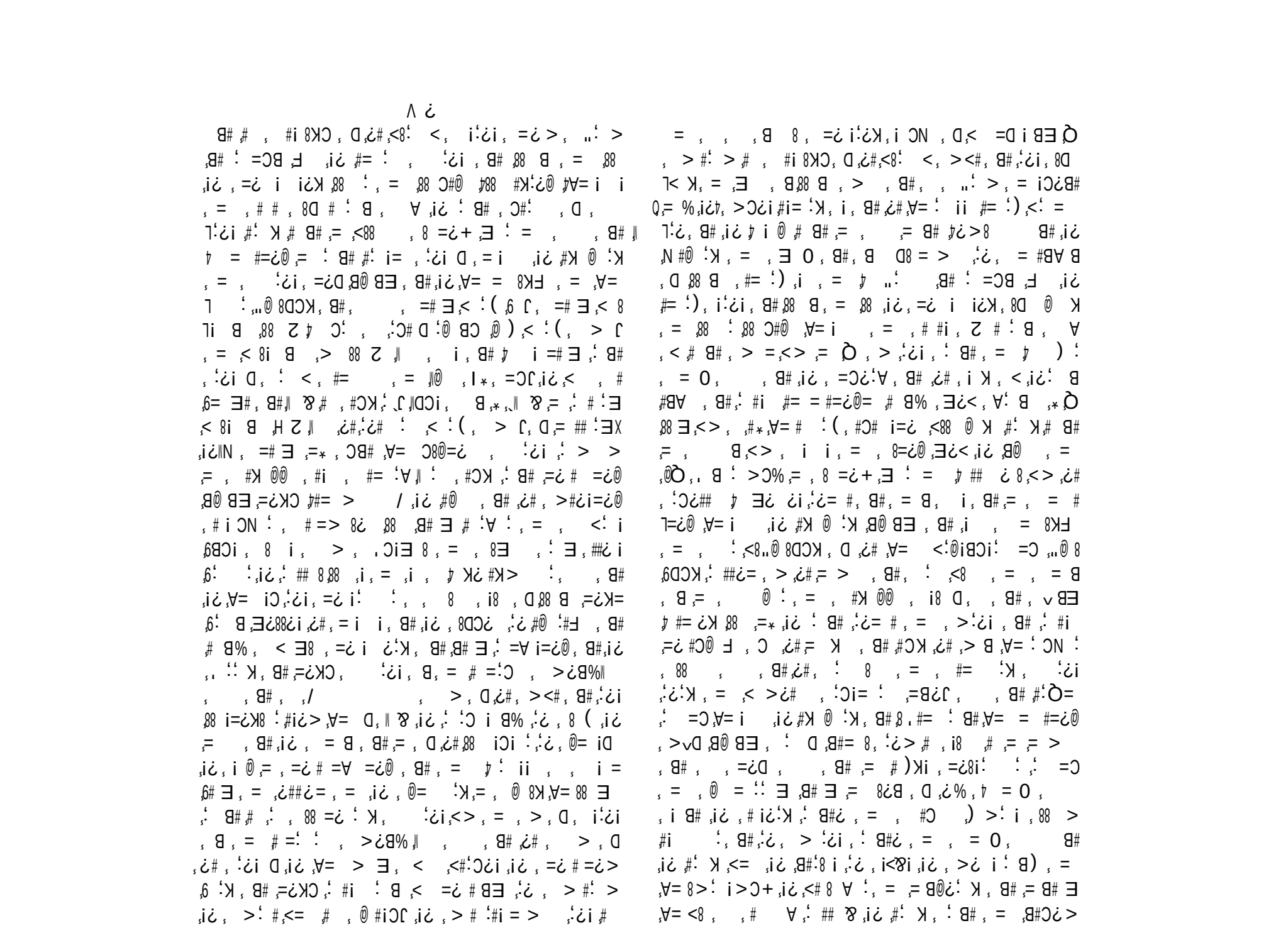
8 F = ;' ?! 4' J?B=' 8@?< 4' ;@BD 8 ' 8 ?= ' J < ' (" =' D;?#B ;' #?' #B ' 0 ; ' ?!' (" =4' J?B=' /?## ;4' ;@BD 8 ' (# E ;# *! ?D 88' 8 !?= 4' * * ; ?=' ; 4' %B?< ' %C;=DC88' ?!' (# = B 884' 2 8# ;' %C;=DC88' ?!' E8 ' J?B=' * C;; >4' B; #?KB ;' * = ;4' 2 H') ?A ;4' ?D ;# (=A!# ;4' + ' 2 B># ' (< #B' =' 0 = ;"4') ?=' 2 ;') C=!< #B' #B ; 4' + ') D ?=' #B ; 4' J?B=' 2 8!?= ' E;># ;' =' 0 = ;"4' '%B?< ' / 88 = 4' J < ' 0 C; ' E;># ;' #B ; ' ;@BD 8 ' (<K ?= ' #B ; 4' %B?< ' 0 C@B9' 8 = '#B ; 4' 2 88 <' !! ;AC ?= '#B ; 4' J?B=' (<K8 ' < ?=' #B ; 4' %B?< ' *=A8 ' #B ; ' 8 F\' = ;L ?= ' #B ; ' J?B=' /C<K8 ; >' #B ; 4' J?B=' J @"' =' 1 <KB8 ;' 2 88 <' / A =' < ?=' =' 0 = ;"4' ?D ;# 0?@"B ;# ?!' ;"B '') =' < 8#?= ' ?!' 88' J < ' 2 ;' ?!' J?B= B 884' J?B=' (# 88' =' ;9' E # ;B 4' J?B=' ?E' =' +?CA8 4' J < ' 2 B># ' =' +?CA8 4' 2 88 <' !! 8@?= ;' =' < 8L #?= ' ;#BC; ' % @" # #B ; 4') =' 2 #B ; K??= ' ?!' #B ; "=?E4' J?B=' & !#?C= ' K?;# ?= ;' ?!') ;= NC =4' ?D ;#) ?? E = ' < 8#< =' =') 8 L A?E4' J < ' C= =AB < ' < ;@B = ' #B ; 4' * @' 8 @"E 88' ?= ' #?' %B?< ' 8 @"E 88' #B ; 4' 2 8L 8 <' 88' ! E ;' =' C#B ;A8 =4' ?D ;#!!8 >< =A' ?!' C@B =! = 4' J?B=' < 8#?C= ' ! E ;' ?!' ? A ;9' #?C= ' %B?< ' ; A ' ! E ;' =' J @"#?C= 4' J?B=' 88 ;' >?C=A ;' ?!' 0?=A' 8 ;E?? 4' J?B=' 2 9' ?= ' ?!' AB!8 ##4' ?D ;# (# =' ! E ;' ?!' E9' 8 = 4' J?B=' (# 88' ?!' 2 = B 88' J?B=' ?@B; =' ?!' ; A ' J < ' +>" ' ?!' 8DC;= 4' J?B=' < 9' C8! ' ! E ;' =' J @"#?C= 4' %B?< ' / #?C= ' #' #B ' ?8 ' " ;" ' ?!' <D ' = #B = 4' J?B=' 2 B># 8 E' =' ?#BE 88 B 88 ' J?B=' / # ; ?= '#B ; 4' J?B=' * B># ' ?!' 1 E" ' %B?< ' 0 = ' ?!' 8 ; @B = 4') 8D ;# \" ' E; #B' ?!' +C<?;@B ' %B?< ' \J ;;?E ' ?!' ;;4' J?B=' \J ;;?E' ?!' / =A ;;?@B4' =;>' . 9' A ;;?@B' ?!' 8# 8D = 4') ?;A ' \8C ; ' ?!' == =' . / " 8E; #B' ?!' C@B =!8?C; ' J?B=' h 8 F9' = ;' ?!' +C<?@B; =' / < @" = ' ?= '#? \< @" = ' ?!' 1 88' (# = ' ' 88 =' ?E ' ?= '#?' ?E ' ?!' +;C<8 >4' <' / B 8K4 = ; E' / ## 88?@B4' 0 C; =@ ' >4' . *\' +?= 8 ' ;A 884' \' J < ' ? A4' \' 2 8# ;' (< #B' 2 8L 8 <' %B?< ?= 4' 2 88 <' ??#B '4' / #; @"' !!?;9' < = 4' ?D ;#) ;=?@"4' + '! ; 4' J < ' (# E ;# 8 F = ;' C! 884' 2 88 <' .8C;; >' ?!' ?E9' B 4' ;@BD 8 ' & ;8 ' ?!' ;A>8 4') ?;A ' ;#BC; ' ?!' ?= B 'K?;# ?= ;' ?!' 88EB # #?= 4' J < ' ' ! 4' ?!' (B ;A ;#?=' +?= 8 ' ?== 88' K?;# ?= ;' ?!' C@B9' 8> ' %B?< ' C!(88' ?!' .* 8 ; A4' & E ; ' .! ; 9' B '' B ; #?;' ?!' 1 <C ; 4' J?B=' % 8?;' 8 ;' =' ?8 B?C! 4' J?B=' (B E' ?='#?' J?B=' (B E' ?!' & !# ;') ; =B #84') ?;A ' ?@B; ' ! ;' ?!' (#?= ; A' %B?L < ' !! ;AC ?= ' ?!' !8(== ;#' 2 ' <' ;; ' =' 0 = ;"' B; !# =' !!>! ' ?D ;#) ; >' &=A8 8B< =4' J < ' ?D ;# ?= ' J?B=' !! =8 >4' 2 88 <' ?@B; =4' (<C 8') ; ; ?= ' ?!' + 8A?= ;' 2 ! 8 <') ; ; ?= ' ?!' 0?@BNCB ; ' J < ' 2 8 B' ?!' 0 ##8 ' 8?C =' J?B=' ;?C= ' B ; #?;' =' 1 E#?C= 4' =;>' \@C89' 8?@B' ?!' ;B?8< ' =#B?= ' @" ' ?!' 8?=@ ;

>?K?!4) ?;A '0?; 'B8 8 884 + ' ?=#AC<; '
?!'0 =A B E4 @B ; ' C<D?8 '&=A8 B< =4 + L
' (# E ;# ?= '#?'%B?< ' (# E ;# ?!' C8#= ! 4
B 2 88 <' (K =@ ' ; =# #?'#B ' 8 # '& ;8 '?!'
;A>8 4 2 88 <' + =B?8< '?!' 2 # B 88 4 J < '
(# E ;# ?@ # 4) 8D ;# &88?#4 %B?< '
(#? B ;#4 J < '2 8" ?= 4 B8 ##B E' ;>@ 4 ;@BL
D 8 ' <KD 884 + '0 E4) =' C! 884 K
%B?< ' ;#@B ;4 K; @B ;4 B K B ;8 ' <KD 88
?= '#?'#B '8 # ' & ;8 '?!' ;A>8 4 ;@BD 8 ' <KL
D 88 ?= '#?'0?; ' 88 <KD 884 B K J?B=' <KL
D 88 ?= '#?'#B '8 # ' & ;8 '?!' ;A>8 4 J?B=' D #
@ 88 '?!' ; B '4 = ; E'!!8 #@B ;'?!' (8#?C= 4
(;' +C=@ =' <KD 88 ?!' C@B =D; "4 +?= 8 '
<KD 88 ?!' ;D; @"4 J?B=' <KD 88 >?C=A ;'?!'
88!?;#4 J?B=' <KD 88 ?!' 1= K4 B K 8 F = ;'
<KD 88 ?@ # 4 +?EA '' <KD 88?!'1 8D ;; '
>?C=A ;' %B ' @ # 8 F = ;' B/< 88 = '?!'
+;C; <? ;4 +?= 8 'B8K= ''?!' ; ;'+C=@ =' <KL
D 88?!' ?;; 884 8 F = ;' <KD 88?!' ## ;4
B8 ?;' = ; ?= 4 K# = 'J?B='! C ' ;9
#?C= 4 B ;') ?;A 'P2 B ;# K; @B ;4 B K 8 F = ;'
'*8?D ;# &8KB =A!#?C= '?!'0 K= 4 K# ='
J?B=' =;>4 / #; @"' <KD 88 ?= '#?' B K J?B='
<KD 88 @ 88 ' 8 @"' / #; @"4 / #; @"' B8[;#BC; '
?!' *=@B; = 4 ;@BD 8 ' B8K 8 ;=?@"'?!' D4 * ;'
B ; ;' 8 ' <KD 88?!' ; B= !8F %B ' @ #
+?CA 88 B K B' ?!' +C= ; ; 4 88 <KD 88?!'
& = @B =' <KD 88?!'1 8 8 =

J?B='1 ;'E; AB# ?< # <' ='#B 'K ;?@B'?!'*8C=9'
=C<'J < 'B8C ;' #'#B ' ;?! !??; 'D? # =;>'
88?!'*8 EABB 4 K J?B='B8 =A '?!'2 =# ;9'
@8 CAB' ?;' *8 =A =A B E' 8 ;B@
>?C=A ;'?!'2 = A 4*8 <>' ? E@88K?;# ?= ;'
?!' +C= > #?C= ' ?D ;# (#@ 88K?;# ?= ;'?!' (# = '
J?B=' " 'K?;# ?= ;'?!'*8C= 88E?? 4 J < '
?E ?= '< 8#< =' ='0 = ;"4 J?B=' ?@B; = '?!'
2 # ; > 4 J?B=' / #?=' ?!' B8 ?EB ' @ 88 '
K# =' / #?=4 %B?< '*8 ="=@ ' ='0?@B ;D = 4
= ; E' 8 ;" ' ?< # C= ' ='0 B 88 ' =' ; E9'
!??; 'K ;?@B' (<C 8 B8 @" E = ' =')8 =@ ;=@'
K ;?@B4 J < '& @?8' =' / D8 B>; 4 2 88 <'
?C=A' ='0 = ;" B>; 4J?B=' C#@B ?= 'K?;# ?= ;'
?!' ED?##8 4 J?B=' (<K8 'J?B=' 2 ##') D; 8'
%B?< ?= 4) ?;A 'J @" ?= 4 %B?< ' 2?? 4
J < ') ; B < 4 %B?< ' ?D ;# ?= 4 B K ?D ;#
88 '?!'J ;b E?? ' 2 8# ;' ?< #>< ' & ;8 '?!'
% ;; 4 ?D ;# B8 88 ;' ='#B 'K ;?@B'?!' C#B ;A8 =4
?D ;# /?88?@"' B? < " ;' =') 8 A?E4 %B?< '
1 == >'?!') ; =A 'J?B='/?;# ;! 8 '?!'+?C@B 884
J?B='B8 @" '?!'0 ;A 4 J?B=' C! 88?!' #@; A'
'J?B=' C! 88?!' ;= 4 J?B='J *NCB ;; 4 J < '
(< #B' J < '0 E!?= ' 8 F = ;' 2?? 4 8 FL
= ;' ' =@ 4 J < '1 ;"E?? ' (;' J?B=' ?@BL
; = '?!' @B 8#; 4 (;' / #; @"' ?< '?!' /?' E ;#4
) ?;A '/ ; =A8 '?!'%?;E?? 8 4 K ?D ;# ;# = '
8 # ' 8 ;" '#?'#B 'JC # @ ' ?C;#4 B K ?D ;# !! ;9
AC ?= ' ?< #>< ' B K8 = '#?'#B '& ;8 '?!' (B !# 9 4
D ;; 4 %B?< ' (# E ;# ?!' C8#= ! 4 (;' CAB'
<KD 88 8 ;'?!' ! =?@"' (;') ?;A ' <KD 88

1 ;'?!'1 ;; 8 = '>?C=A ;4 J?B=' <KD 88?!'+ ;9
A @B 4 ?D ;# <KD 88 B 'D;?#B ;' 8 F = ;'
B8K ;#BC; 4 K# = ' #?'#B ' 8 # ' ;A>8 4 ?8 ='
= ' +C=@ =' <KD 88 ' 8 ;' = ' >?C=A ;'?!'
88 =A; A4 J < ' ?< #>< '+C" '?!' C@"@8 CAB'
= 'B8?=<?C#B4 +?= 8 ' <KD 88 ?!' '= D '
;@BD 8 ' <KD 88?!'+ = 4 +C=@ =' <KD 88?!'
C8A 8#;?4 =AC 'B88 C@B8 = '?!' ;= A 4 ' ='
B= C@B8 = '?!'+C= 4 ?88= ' <KD 88?!' 8 ;9
=# DD ;# %B ' @ # +?= 8 ' <KD 88?!'+;C<9'
! = 4 +?= 8 ' <KD 88?!' D4 +C=@ =' <D 88
8 ;'?!'+;C<! = 4 =AC ' <KD 88?!'+ 8#?C# 4
J?B=' <KD 88?!' ' 8 F = ;'0 E<?=# ?!'
B8?=> ;>== =4 J?B=' <KD 88?!' ; # ; @B' J?B='
B8KB = '?!'*== ;=> = 4 8 F = ;'B8 8<C= '?!'
1 =8?@B8 = 4 ;@BD 8 'B8KBC= '?!'+; K4 8 FL
= ;' <KD 88 >?C=A ;'?!' (?= @B = 4 J < '
2 8 ?= ' ='B8?! B '?!' O?@BNC =?@B4 J?B=' =9'
;!?= '>?C=A ;'?!' 2 # ;#?C= 4 J < '?>88
@ 88 ' B K J < ' =E @"T' K; @ =#?;4 B K J < '
=E @"' 'K; @B ;4 B K) D; 8 B8 F '' ' < L
= # ;4 = ; E' B8 ;# = '?!'0 ##8 ' ;; 4 = ; E'
B8 " ' =' ;=E #B' K ;?@B4 J?B=' (# E ;# ?= '#?'
J < '(# E ;# =' +;C<8>4 @?8 ' ?@B; = 'K?;L
?= ;'?!' B8C ;B?C 'J?B=' ?@B; = '?!' B K 88
?D ;# !!C88 ;#?CK '?!' == 88 4 J?B=' 2 8 ?= 'B K
%B?< ' / ' =' ;@BD 8 ' (<K ?= 4 8 F = ;'
= ; ?= 4 J?B=' (<K8 '2 88 <' / ?=4 %B?L
< ' *=A8 4 %B?< '0 C@B8 = 4 2 88 <'!! ;AC9'
?= 4 8 F = ;' ;?C= 4) ?=' 2 ;4 J < '
"9%,"7-' 2 . -,' 8A ;' ='1 == # B

@?;; K?=' =`D` ii ;' =`?#` =' # i ' =`K >`
fB <` ?i` #B ` ; =# =`# ;<8 `i 8A `#B ; ?i`
i ` ‖%B?< ` C;:= # =`B `i?; `#?`iC# `
< == ;` ?i` F @C‖=` D?#B` K ; ?=` 88 =`; 88 B ;9`
CK?=` E #B?C#`K; <?= # ?=` ?;` NC i # ?=` =` i?;`
#B `< ; `i @C; #>` <` @?=# =# =`@?=i =#`B `;`
K?i i ?;` #B ; ?i` =` i` =` `D `#?`@?= =`
<8=` =` =` i@?#`K ==>` `Ci ` =`#B `?=`
?i`#B ` `O = `; F `E #B`#B ` 8 K`?i`#B ` `
=? E > ` > ` 8 `C= ?= `%B ` EB 8" `#?` ?
*` @?<< ##`#?` >?E` ?;` =>` ?i` >?E` <>`D 88 `=`
#B # K ;#` i?; `<>`iC88`K?E `;` =` ?<< i ?=`
D>`#B `<>`K; @ K#`?i` 8 =A`%?`D `B?8 =`?i`< 4
= `<>` ; `?;`i; `< ` =`#B <`?i` <>` CK ;`?;`
?i`#B ` `O = `?;`D>`D?#B?;` #B ;`?i`#B `
B?8 =A`#B `?= `DC#`K; C @`?i`#B `?#B ;`=`#B `
?K# D=`?i`#B ` ‖%B?< ` C;:= # = `B `
%B?< ` C 7= # = `B `i?;i `D>`K >< =# #?`
#B <`?;8 EiC88 @?= A= # ?= `#?`#B ;`D B?? `?i`
E #B` 88 D>A?= `; =#`#B ; ?i`#B # B 88D ` E`i?;`
#B ` `K; =8` ?C< `?i` % =` #B?C = `< ;" `
J ℓ) ;`>`E #= `$?88?E`#B`# =?;`?i`#B ` i = `
(@` CD @;`D #C;` ` ;C@ ` 2 88ℓ B i8 >`E #= 4
#B`i ` ‖ 2 88 <` B i8 >` = `J < `) ;`>4
,;? @9H = ` =# ` > ;@`D i?;`#B ;` E #= i `
#B ;`K; =#` # & =D‖`#B `#E =# ` >`?i`JC= `
Q ; A; `# E #B` 88 ?8 <= # ` ; NC i # ` @?=i?;< `#?`
#B ` @#`?i`/ ;8 < =# CK?=` EB @B`@?= # ?= `#B ;`
KC#` ; `A; =# ` = ` @@ K# ` =` < == ;`i?; `
*=` E #= `N‖?i`XE; ## =`D`J < `) ;`>`i ; #?;`#?`
J *‖ 2 88 <` B i8 >`E 8 ;` =`& ‖`*`B `iCD[
#B ;`K; =#` # & =D‖`#B `#E =# ` >`?i`JC= `
,;? @9H = ` =# ` > ;@`D i?;`#B ;` E #= i `
#B `i ` * ‖ 2 88 <` B i8 >` = `J < `) ;`>4
(@` CD @;`D #C;` ` ;C@ ` 2 88ℓ B i8 >`E #= 4
J ℓ) ;`>`E #= `$?88?E`#B`# =?;`?i`#B ` i = `
" =`CK?=`#B `i?; `D = `*=`#B `=`<`?i`) ? ℓ
< =ℓ ` #`"=?E= `#?` "`< `D `#B`#E =# `i =#B`
8 "" =i#;C< =#`%B # CK?=`#B`#E =# `i =#B`
>`?i`JC= `*7` @9 Q i =# `>` ‖ `=`?i`?C;`
(?ℓ 0 ?ℓ A= ℓ B ;8 `D `#B ` @`?i` ) ? `
1 =A`?i`) ; # ; # = `*$;`=@`Q *; 8 = `i = ;`
?i`#8 `i #B`#B `#E =# `#E?> ;@ℓ *=`K; i =@`?i`
< `=?## ;`KCD8 @"`C= ; CDi@ >‖ =A` =` E #= i `
i# ;`= < ` ?<K ; `K ;i?= 88>` = ; E`+?= 8 `
=`%C;= ; B 88* 88 @` =`#B # K ;`# #?` 8 F‖ ;C@
i?; ` ℓ K ; ?=`E` = `B 88>`#` D>` @8 ; `
&` ;A 88 # ` 88 8> =A` ` ` ℓ ?;` iC;`#B`?i`#B
& ;A 88 # ` 88 8> =A` ` ` ℓ ?;` iC;`#B`?i`#B
>`K;@ ; ℓ ##?C;`#?` <>`0? # ` = ; E`+?= 8 `
=`%C< ;i8 88` = `@B
?i`>?E` @?=# ` = `i B ` <>`D 88 @` =`#B #`K ;`#
K @ 88 `@?=i# #C# `) ; # =A5 *#` ` <>` E 88 = `
*`@B ;A `>?E`%B # =@?=# = =# i# ;` AB#`B ;?i`
> `K i`#?`#B `A;?C= `?i`#B` `O = `; F ℓ
= `#B ; `i?;`< ` = `=` <>`= < `%B #>` A `
B ; # D8` # # ` = ` 8 =A` @#C 88`; 88 =`K @ L
D8`K?i i ?= `?i` 88 = `B 88`#B `i?; `; =#`?i`
F` BC= ; #B` < ;" ℓ = `i` ; =#`B 88D `B AB#9
= `?;` < = 88 `D>` #B` O E ` = `K; @# N`?i`
#B ` 8< ℓ #B =`= `=`#B #@ i ℓ?i`#B`?; = `;
; =#` 8i ; =A`#?`#B` `K; =i#`i?C< `?i`% =`
#B?C8 = `< ;" ` `B 88 D ` E` = `
K > D8`i?;`#B`# < ℓ > ;8>`#?`D`CK8 i# `#* ;9
< ` = `2 B #i?= >`D>` NC 86`K?;#`?= `iC;`#B`?i`
`=` B `"`#B` `* = `?i` ‖?7< B 884 2 i9
;A 88@#`( 88 #?C= `& ;`%C< ;i8 884 * 8= `=`
* 8=8 = `?i` C=C=?C#B` = `#B `#B ; `K ;`# ?i`
& ;A 88 # ` 88 8> =A` ` ` ℓ ?;` iC;`#B`?i`#B
?C; `i?;`=?E` = `; @8 ; D>` @8 =A`K8 @ `=`
?C;`i?;< ` `. `@?=88 #C#`
=`i?;< ` `8$ ;` = `. `@?=88 #C#`
>`K;@ ; ℓ ##?C;`#?` <>`0? # ` = ; E`+?= 8 `
=`%C< ;i8 88` = `@B
?i`>?E` @?=# ` = `i B ` <>`D 88 @` =`#B #`K ;`#
K @ 88 `@?=i# #C# `) ; # =A5 *#` ` <>` E 88 = `
*`@B ;A `>?E`%B # =@?=# = =# i# ;` AB#`B ;?i`
> `K i`#?`#B `A;?C= `?i`#B` `O = `; F ℓ
= `#B ; `i?;`< ` = `=` <>`= < `%B #>` A `
B ; # D8` # # ` = ` 8 =A` @#C 88`; 88 =`K @ L
D8`K?i i ?= `?i` 88 = `B 88`#B `i?; `; =#`?i`
F` BC= ; #B` < ;" ℓ = `i` ; =#`B 88D `B AB#9
= `?;` < = 88 `D>` #B` O E ` = `K; @# N`?i`
#B ` 8< ℓ #B =`= `=`#B #@ i ℓ?i`#B`?; = `;
; =#` 8i ; =A`#?`#B` `K; =i#`i?C< `?i`% =`
#B?C8 = `< ;" ` `B 88 D ` E` = `
K > D8`i?;`#B`# < ℓ > ;8>`#?`D`CK8 i# `#* ;9
< ` = `2 B #i?= >`D>` NC 86`K?;#`?= `iC;`#B`?i`
`=` B `"`#B` `* = `?i` ‖?7< B 884 2 i9
;A 88@#`( 88 #?C= `& ;`%C< ;i8 884 * 8= `=`
* 8=8 = `?i` C=C=?C#B` = `#B `#B ; `K ;`# ?i`
& ;A 88 # ` 88 8> =A` ` ` ℓ ?;` iC;`#B`?i`#B
?C; `i?;`=?E` = `; @8 ; D>` @8 =A`K8 @ `=`
?C;`i?;< ` `. `@?=88 #C#`
=`i?;< ` `8$ ;` = `. `@?=88 #C#`
>`K;@ ; ℓ ##?C;`#?` <>`0? # ` = ; E`+?= 8 `
=`%C< ;i8 88` = `@B
?i`>?E` @?=# ` = `i B ` <>`D 88 @` =`#B #`K ;`#
K @ 88 `@?=i# #C# `) ; # =A5 *#` ` <>` E 88 = `
*`@B ;A `>?E`%B # =@?=# = =# i# ;` AB#`B ;?i`
> `K i`#?`#B `A;?C= `?i`#B` `O = `; F ℓ
= `#B ; `i?;`< ` = `=` <>`= < `%B #>` A `
B ; # D8` # # ` = ` 8 =A` @#C 88`; 88 =`K @ L
D8`K?i i ?= `?i` 88 = `B 88`#B `i?; `; =#`?i`
F` BC= ; #B` < ;" ℓ = `i` ; =#`B 88D `B AB#9
= `?;` < = 88 `D>` #B` O E ` = `K; @# N`?i`
#B ` 8< ℓ #B =`= `=`#B #@ i ℓ?i`#B`?; = `;
; =#` 8i ; =A`#?`#B` `K; =i#`i?C< `?i`% =`
#B?C8 = `< ;" ` `B 88 D ` E` = `
K > D8`i?;`#B`# < ℓ > ;8>`#?`D`CK8 i# `#* ;9
< ` = `2 B #i?= >`D>` NC 86`K?;#`?= `iC;`#B`?i`
`=` B `"`#B` `* = `?i` ‖?7< B 884 2 i9
;A 88@#`( 88 #?C= `& ;`%C< ;i8 884 * 8= `=`
* 8=8 = `?i` C=C=?C#B` = `#B `#B ; `K ;`# ?i`
& ;A 88 # ` 88 8> =A` ` ` ℓ ?;` iC;`#B`?i`#B
?C; `i?;`=?E` = `; @8 ; D>` @8 =A`K8 @ `=`
?C;`i?;< ` `. `@?=88 #C#`
=`i?;< ` `8$ ;` = `. `@?=88 #C#`



- ,+'# ;'< ,'i'Ξ # ?= >' = ' ;'# < 'D , N 88
0K?;'# ?=' iC;'#B' ?i' 88' = ' B 88' #B' , 0 = '
?i' ;'??= B 88# 2 i# ;A 88 # 4 (' #?C=' & i# ;'
%C< ;88 88' < 8= ' ;' < 8= 8 = ' ?i' C;=' <?C#B'
= '#B ; 'iK ;'# ?i'& i# ;') 88 #' 88 8> =A' , , '
?';' iC;'#B' ?i' #B' '; 5 < 88' i ;'< 4 C # , = '
?#B ;'K;?i 8 ' ?i' #B' , 0 = '#?' #B' , 'J?B='
; CiC;' , @#?;=' >' = 'K;?;'i?; 'D' 8> ; '
#?' B <' ?i' ;#B' = 'i#?=' ?i' #B' A;?C=' ?i' #B'
4 'O = ' 8 K' ?i' #B' i ' * *>8=' = 'K == ' ,
Ci' ' 'D =A'K; =#' = '; @ =A'#B' < ='
='B '= < '%?'D 'B?8 =' = 'C= ';' ; ?=' =
< == ';'i?; 4 i# ;' #B 'i?;'< ' ='# =?'; ?i' #B'
i?;'i 'D = ' = 'K; @ K# ?i' #=A' D i?;' = ;#
#B' ; ='@?=# = ' =' 88K? =# 4 CK?=' #B'9EB@@ 88
= 'C= ;>'#B' K; < i ' #B' ,'J?B=' ; CiC; '
@#?;>=' = 'K;'?;'i?; 4 " = '#??" '*=i#;C9'
< =#' = '?;'< ' ='#B' B = ' ?i' < ' =?## ;'KCD9'
8 @"' C= ; CDi@;> =A4 %B ;' #B' =A' E ; ' ?='
CK?='#B 'A;?C=' ?i'#B' ' 8 = ' = '< 8= 'D L
#E F#'#B; ' = 'i?C;'B?C; ' ='#B' i# ;=??= 4 >'
<?= #B' = '> ; ' ?i') ? ' D? K # D i?; '#B ;'
E #= i# ' =;>' ? =#; ' < 8= ;' ='#B' < 8= 'i?;' ?=L
C;=' <?C#B'J?B='+;C< <?=' ='O>< " 88 4 J?B='
' ='%?; DC< 4 = ' ?D ;'#) D' ='%C;=' ; 9'
B ' ;'#?'#B'K; < i 4 E #= i '@ 88 ' = ' ; NC>; '
(@' CD @; D #C;'4 &'#' A?' ;'?' = ; ' (<K ?='
8 ;'@C' = ; <' ?@ i ' C# ' ; A 8' @'K ;' ?L
< =?' @?= 8 ' # i@i ?=' ' @C= C<' # =?; <' @'
@ <' =i#;C< =#' i?;'< <' ; A 4 A=?N 4 =?< = '
#' @?A=?< = ' < ' ?8 # ' #' @?= C # ' A= ' #
iCDi@; K 8 ='i <' ;?DC;' @#' # # <?= C<' ; # # '
?<= C<' # =AC8?;C<' K; < i ?;C<' ;?A #C ' #
= # ' # #DC ' K; = 'K@; ?= 8 #?;' *=# ;iC 4 N'
A ; =#C;'4 @ ; =#C;' #'i ; =#C= ' @C<'#@C#'K; < ## #C;'
< i '?<= DC ' # =AC8 ' C<'#@C#'K; < ## #C;'
?i' ;'??= B 88# 2 i# ;A 88 # 4 (' #?C=' & i# ;'
%C< ;88 88' < 8= ' ;' < 8= 8 = ' ?i' C;=' <?C#B'
= '#B ; 'iK ;'# ?i'& i# ;') 88 #' 88 8> =A' , , '
?';' iC;'#B' ?i' #B' '; 5 < 88' i ;'< 4 C # , = '
?#B ;'K;?i 8 ' ?i' #B' , 0 = '#?' #B' , 'J?B='
; CiC; ' , @#?;=' >' = 'K;?;'i?; 'D' 8> ; '
#?' B <' ?i' ;#B' = 'i#?=' ?i' #B' A;?C=' ?i' #B'
4 'O = ' 8 K' ?i' #B' i ' * *>8=' = 'K == ' ,
Ci' ' 'D =A'K; =#' = '; @ =A'#B' < ='
='B '= < '%?'D 'B?8 =' = 'C= ';' ; ?=' =
< == ';'i?; 4 i# ;' #B'

' *=B

(; 8 F = ; ;C@ ' B ' ?E= ' 8 ; # ?= ' = ' @"=?E8 A< =# C= ; E; ## =4 = ' #B #B ' C8 ' < ! ?= ' ?!' #B ' 'D?= ' = ' 8 =A' E ' ? '=?##?C;' %B ; !?; ' #' E 'B '?K = ?=' ?!'#B ' ' ?< < ## ' !?;' ?=#; ;# ' &8 @# ?= ' %B # #B ' !?; ' D = ' ?!' % =' #B?C8 = ' < ;" ' E ' C!! L @ =#8>' K;? =' D>' #B ' E #= ! ' C@ 4 < = L @8 4 = ' (; 8 F = ; ' ?E= ' 8 ; # ?= ' = ' #B #B ; !?; ' = ' @; # ?!' / ;8 < =# B?C8 'D ' A; =# ' A =!# #B ' ' (; 8 F = ; ;C@ ' + @ ;= =A' #B ' < " =A' CK' ?!' #B ' # =?;' ?!' #B ' D = ' = ' ! =A' 'B ' ' ; K?;# ?!' #B ' ?<L < ## ' D ; ' 2 B @B' ; K?;# ?!' #B ' ?< < ## ' D <A' CK?=' #B ' >' = ' # '?!'#B ;' K; =# ' ; =' K; =@ ' ?!' #B ;' !# ' B AB' ?< < ! ?= ;' = ' !# # ' ?!' / ;8 < =# !?; 4 = ' #B >' B g =A' @?= ; ' #B ' < 4 = 'D =A' #B ; E #B' E 88 = ';>K 8>' >! 4 %B ;' !# 'B AB' ?< < !L ?= ;' = ' &!# # ' ?!' / ;8 < =# !?; ' !! = 4 = ' B ; D>' !! = ' #B ' # =?;' ?!' #B ' ' D = ' ?!' % =' #B?C! = ' < ;" ' A; =# ' D>' #B ' ' (; 8 F = ;' ;C@ ' ?!' ;??< B 88 ' 8!? ' ?!' #B ' *=!#;C< =# ?!' ! =A' !?88?E =A' #B ; CK?=' 8>D 88 ' CK?=' D ' #B ' ' (;' %B?< ' C;= # !C88>' K;? =' D?#B' D>' E #= 8 ' (;' 8 F = ;' B ' ?E= ' @8 ; g # ?= ' = ' ?#B ;' !! = = 'K;? C@ 4 = '%B ; L !?; ' %B >' @ ;= ' = ' B ; D>' + @ = ' #B ' < " =A' CK' ?!' #B ' =?;' ?!' #B ' '% =' #B?C = ' < ;" 'D?= '#?A #B ;' E #B' #B '*= #;C< =# ?!' L 8 =A' !?88?E =A' #B ; CK?=4 A =!# #B ' ' (; 8 F = ;' ;C@ ' ?!' ;??< B 88 =' 88 #B ;' B ' ;# @8 'Q @8 C! 4 D @ C! '#B '#>< ' ?!' 88 =A' #B ' !?;! ' # ?= ' = ' C! ' D ?; ' #B ' ' ?<L < ## 'EB @B' E 'CK?=' #B ' '!?C;#B' >'?!'JC8>' *= # =# #B ' ' (;' 8 F = ;' ;C@ ' ! = ;' ?<K ; 'K ; ?= 8 ' = ' C @ 88>' @8 ; '#B # B ' 2 '#; !E8>' E'#?'#B ' ' (;' %B?< ' C;= #4 #B ' ! ' (?C< '?!'% =' %B?C! = ' < ;" 4 = ' ' ; 88>' A; =# #?' B <' #B 'D?= '8>D 88 'CK?=4 CK?=' EB @B' =! !#< =# !?88?E ' ' '8>D 88 ' = ' ' !CD @;> ' = ' 8 ; # ?= '#B ; = =# '#B ' < = ' F#<# =' K;?@ ' D ; ' = '#B ' ' (;' %B?< ' C;= # @; ' %B #' 8D # (;' 8 F = ;' ;C@ ' B <! 8! ' @"=?E8 A '#B ' D# #'B ' ; #?; ' < AB# ; < ' A =!# #B ' < = ' 'D =A' @?'C7 ! ' =' !; C ' ?!' #B < '%B #'#B ; !?; '#B ' ?<L < ## 'E?C8 'K;?@ '#?'# " '#B ' K?! # ?= ' ?!'#B ' E #= ! ' C@ 'B 'B <'!?;' K;? =A' ?!'#B '# K?;' ?!'#B ' 'B ; # B8 'B = ' = ' ! =A' = ' @@?; g =A8>' ; '! <?C 'E #= ! 'D =A' C@ ' = ' F < = ' = =# #B ;' B =A' = ' = '; '#B ' 'B ; # B8 'B = ' = ' =!#;C< =# ?!' ! =A' !?8L 8?E =A' #B ; CK?=4 %B >' E #B' #B '?#B ;' < = @8 ' C@ ' ' C!! @ =#8 ' K;? ' = ' < " ' CK' #B ' # =?;' ?!' #B ' ! ' D?= ' = ' ! =A4 '#B ;' g ; 88' K?! # ?= ' F# =# =' K;?@ ' B ; 5 EB @B' E '@8 ; 8>'CK #!#?? '! ;!# D>'#B ' 4) ?< <!## ' = '4#B =' D>' B ' 'B AB' ?< < ! ?= ;' = ' #B '&!# # ' ?!' / ;8 < =# !?; ' = '%B ; !?; ' %B >' + @ ;= ' #B ' < " =A' CK' ?!' #B ' % =?;' ?!

#B ' 'B ; # B8 ' = ' = '*=!#;C< =# ?!' ! =A' =' < == ;' D? 'E ; ## =5 = ' ; = '8 ## ; '?!' ?;= =A' = ' ?#B ;' F 88 ' = @ ! ;' #?' K ! ' B ;g CK?=' =' !?;< ' ' !! ;

%' =' ! ?C; ' ?!' #B ' 0 ; '?!' ?'? =' = =# B ' < A

% &* ' !# ' ?< < ! ?= ;' ?C;= ' #B ' / ;8 < =# # 88' #?' <?;;?E' #'# =' ' 8?@"' = '@?=# =C ' "' @ C! ' = 'K;?@ ! '# 88' #B #' # <

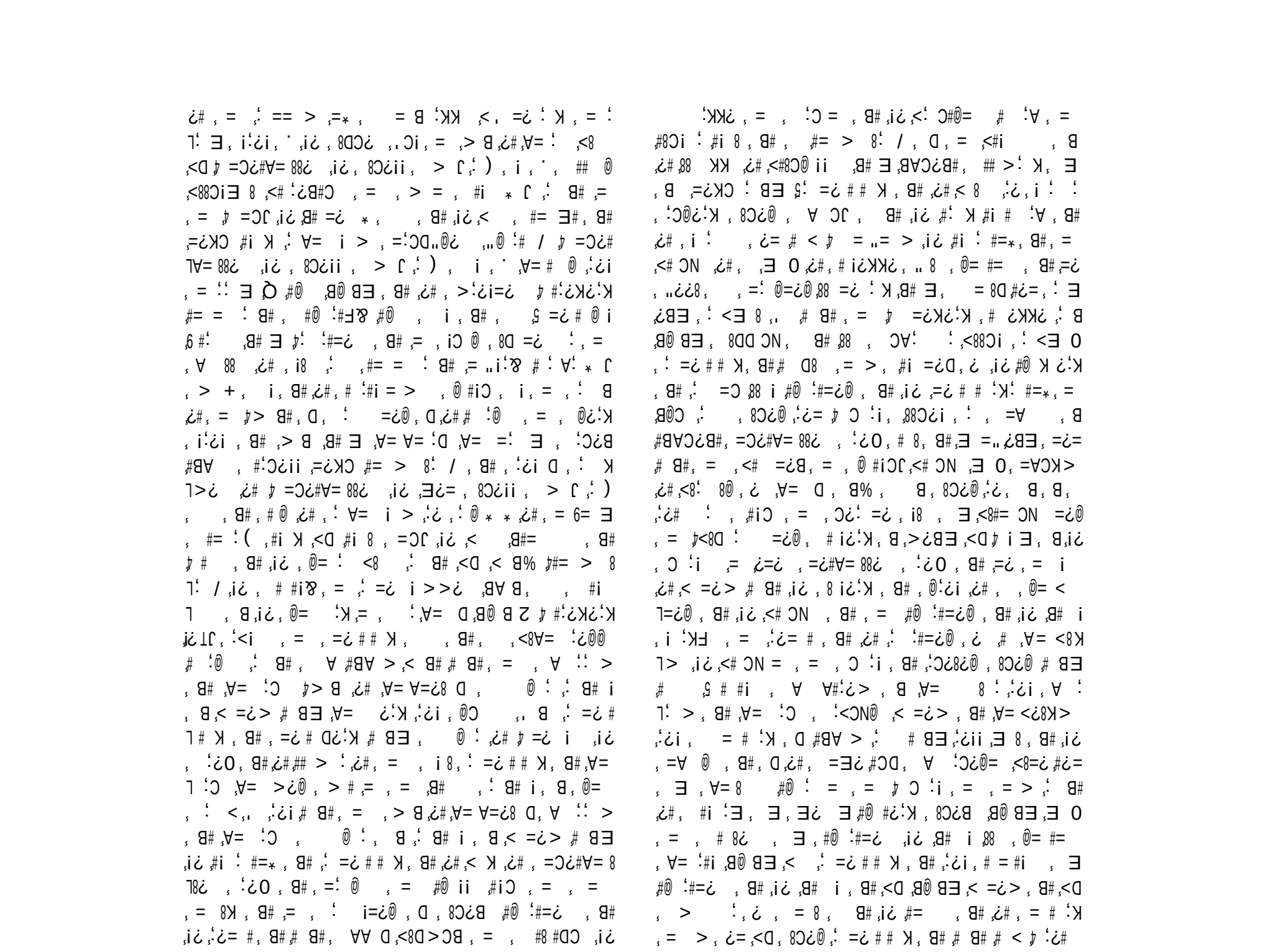
%' &+ * ') 4

, - .' %2 ' 0 2 $

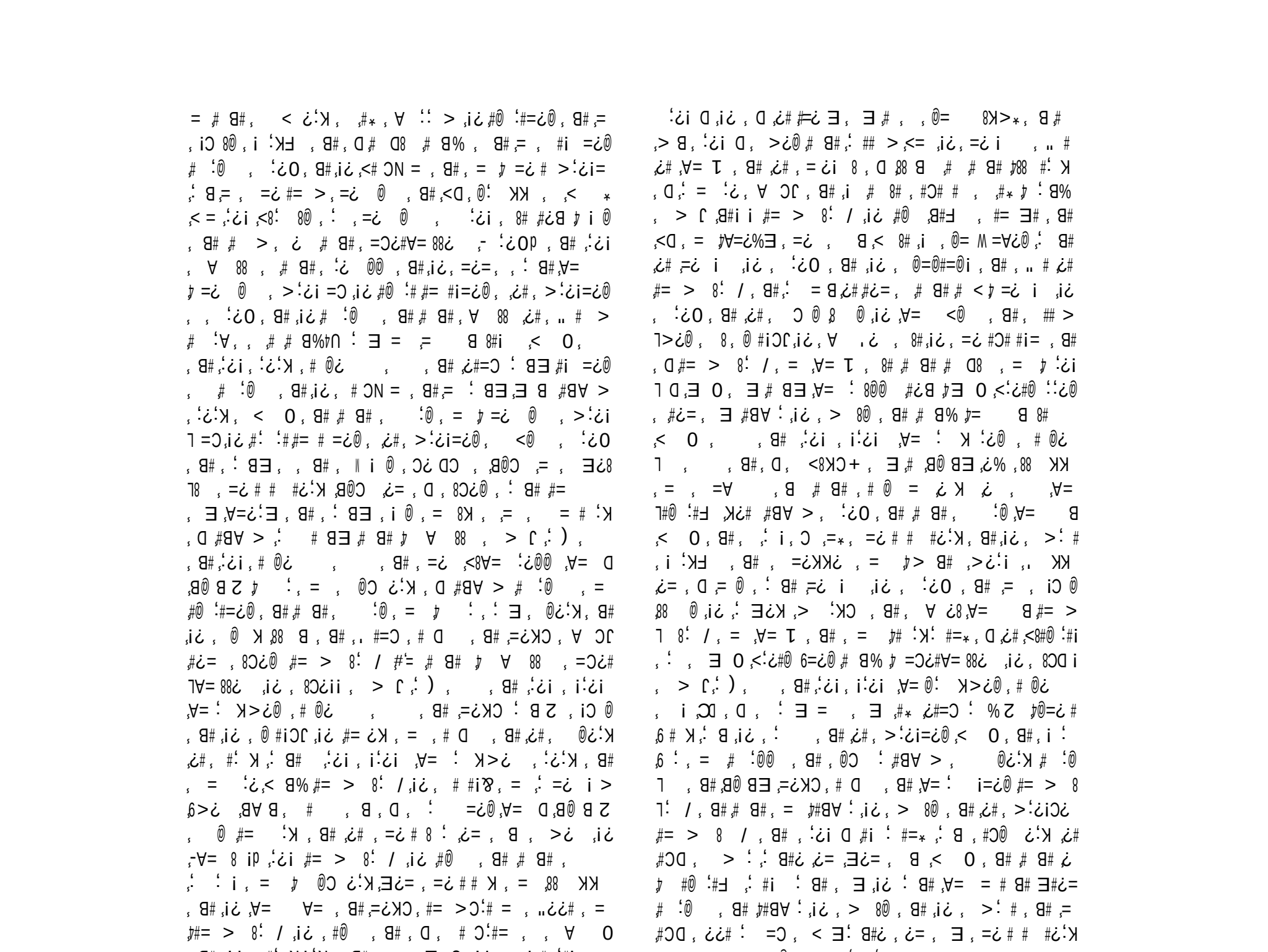
% &' ?88 '?!' / ;8 < =# 88

%' = ' + @; #' =' ! ?C; ' ?!' + < ; ;A ; #' &; " = ' 0 ;' #8 B =4 A = # (;' J < '$?C8 '?!' ?8 =A#?C=

& %' #B ' CKK8 @ # ?=' A =' =' #?' ' g 4' # 'B AB' ?< < ! ?= ;' = '& # # '?!' / ;8 < =# #' #B '*=!# = '?!' + < ' ;A ; #' &; " = ' 0 ;' #8 B =' A = #' (;' J < '!!?C8 ' =?E' ?!' ?88 =A#?C= ' =# ?= =A' %B #' EB ; '#B '8 # ' (; J < '!!?C8 '?!' ?' =A#?= ' B =A' 8?=A' ?CAB#' #B ' K # # ?= ;' =' ;; A ' = '?!! ; ' B 'B? ! ' = '> ; 'E #B' #B; '#B?C = ' < ;" 'D '> ; '#?' B ;' =' ?>=#C; 4 EB @B' B ' @?=! !# E ' 88 B ' B %B ' K # # ?= ;' # 8 !# @?= =# '#?' < ;>4 BC#; L !C '#?'# " '#B '#B; '#B?C = ' < ;" 4 =@ ' #' E '@8 ; '#B #' B '@B 8 ; =' ='B '! ; #' < ; A '/0' B ' ! ; # 0 >' B?C8 '#B =' 8#?A #B ;' E =#4 #' #B ' 0?; ' ?88 =A#?C= ' 4 #B?CAB' #B >' B?C8 ' E =#' 'E?C8 ' @C; '#B ' K # # ?= ;' =' #B #49 D# EB =' B '#?8 'B <' B 'E?C8 ' =?# 8 ' ? 'E #B' B ' B 8 ; =' DC#' @?= @ = '#?' @@ K# ?!' B ' B?C ' = '>K; 4 = '#B '8 ! ; =#?!' 88' ?B< '?!' <?= >' D = ' = 'B ! # A 'EB @B' B ' B?C8 ' @?=9' NC #?;' @NC ; ' = '?!' 88' ?C< '?!' <?= >' C ' #?' B <4 EB @B' B ' B?C8 ' B KK =' #?' ; @ ' C; 7' =A' #B ' ' #; A 4 = 'B '?D8 A 'B < !! ' #?' <K8?>' #B ' < = ' = '# " '#B ' ; AB# ' #B ; ?!' #?' B ; 8! ' = '#B 'K # # ?= ;' = '8?=A !# 8 ;'?!' #B <' #E?' ='B! ; =# !'# 'B 'E ' ? 'E 88' K8 L '#B #'B ' ; ' # < AB# D ' @C; ' '#B 'K # L # ?= ; '0 E> ; ' B?C8 ' >; 4 EB @B' 2 ' @@?; L %7#!0' ?= '%7' !! ' FK; ! ' # =! ' '31-0'#B?CAB#



' ' '*=B ' ' '



D # ?= ' @ ==?# K?8 D8>' D ' C@ ' D !?; ' #B ' < # =A' ?!' / ;8 < =# = ' #B # #B ' ; < ## =A' ?!' #B ' < ' #?' #B ' 0?; ' !' #B ' ! ?= ' E 88' D ' ;>' C=! ##' #B ; ' D =A' = ' ?< < ! ?= ' ?!' / ;L 8 < =# !?;' #?' ! ##' C; =A' #B ' @ =@ ' ?!' / ;L 8 < =#4' 2 B ; !?; ' BC<D8>' @; ' B ' # ' ?< < ! ?= ;' Q & # # ' ?!' / ;8 < =# #?' ; < ## #?' #B ' ?< < ! ?= ' !?;' !>= ' = ' !?;! C8#C; ' #?' ; @ ' EB # K;?D # ?= ' B 88' D '#B?CAB# ! ##' #?' D ' C@ ' =' #B ' ' < ## ;' = '#?' A ' =# =@ ' @@?; =A'#?' EB # ' !?C= ' ; 8 =# D ' #B ' / ;8 L < =# *=' ; K @# #B # #B ' K # # ?= ;' D =A' = ' ?8 ' E?< =' < >' K;?D D8>' > ' D !?; '#B ' = F# < # =A' ?!' / ;8 < =# ' #B ' ' CKK8 @ # ?=' K;?K?;# 4' ' K?=' =A =A' = ' ; =A'#B ; ?!' #B ' ' 9' ?@ # 'K;?; '!?; ' ?<K ; =A'!?;'#B ' '0 >' ; ' #B # #B ' ; ' ?!' #B ' !?; ' K # # ?= ' < AB# D ' A; =# ' 2 B ; C=#?' #B ' ' ?@ # ' K;?;' ?<K ; =A' !?; ! '!?;'#B ' ' (;' J < ' !!? 8 ' ?!' ?88 =A#?C= ' @; ' #B # #B >' < AB# D ' ?; = ' #?' ! ' #B ' !?;! ' CKK8 @ # ?= 4' ? ' ' #B >' < AB# = E ; ' #B ' < = ' A =!85' #B ' = F# > # ?!' / ;8 < =#4' %?' EB @B' #' ' = E ; '!?;' #B ' '0 >' #B # #B ' K # # ?= ' E ' DC# 'K ;# ?!' #B ' K;?@ 4' = ' #B ' ! ; ' ?!' #B ' < = ' D =A' @8 ; 4' #B ; ' ' =?' =@@@! # @' ?!' =A' #B ' K # 9' # ?=@' %?' EB @B' #' E ' *8 K8> '!?;'#B ' '0?; ' ?88 =A#?C= ' #B # #B ' ; ' ?!' #B ' ' K # # ?= ' '@?=#; ; '#?'#B ' >; ' ?!' #B ' K # # ?= ' EB @B' ' #B ' !?C= # ?= ' ?!' #B ' K;?@ 4' B @B' D =A' ' C ' 88' ?=#; @#' !?C= ' ?=' #B ' @?= =# =' #B ' ' ! ;!8' K # # ?= ' @ ==?# =? ' D ' K 88' !; 4' %?' B @B' #' ' +CK8> '!?;'#B ' 0 >' #B # B ' @?C8 ' =?# #B =' *@=? ' B?E' ! ;' #B ' *T ;8 = =# ?C8 ' #8 =" ' ! ##' #?' K;?@ ' =' ; C@ =A'#B ' *=# ;8?N# =' #B ' @@; # ?!' #B ' *F`; '?!' ! ?= ' ?;' # == = 9' =A' =' #8 ' ; 8@ =@ ' ?!' B ;' 8>D 884' B @B' D 8 ?? ' = @ ! ; 8>' #?' K; @@ ' #B ' K;?D # ?= ' (@ < ?' B ' = #B ;' @?C8 ' =?;' ' "=?E' !' #B ' / ;8 < =# B?C8 ' = < ' =>' C@8 ' ?< < ! ?= ' #?' ## !# ;' ?C;= =A' ?!' #B ' / ;8 < =#4' = ' #B ; !?; ' @?C8 ' =?# B ' >; ' =@ ; < ## #?' #B ' ?< < !9' @#=' =' B ;' ! ;!8' K # # ?= 4' 0>" ' #B ' 0 >' < >' K ! ' !;?<' ?;' =! 88' CK?=' =>' @@<@8C! ?=@' =' #B ' ! ;88' K # # ?= ' #B # B ' K8 @ ' ' ' ?; = ; 8>' =' C! ' #?' D ' ?= ' D !?; ' =>' J'C #?;>' 7# =A' b @; ' #B ; ' ' !8 ; =# @?=@8C! ?= ' =' ' 8>D 88' #B ' KC;!@ ; ' < >' =! 88' =' =>' ?!' #B <' ?;' K ! ' !;?<' =>' ?!' #B <' ' 8 ' K8? !@ ' = ' =A' #B ' !?;! ' ?<9' < ##>' E ' KK? =# ' =@ ' #B ' 0 >' A ' =' #B ' ! ;88' K # # ?= 4' ? ' #B # # #B # #>< ' B ' @?C8 ' =?# "=?E' #B # !C@B' ' ?< < ##>' E ' #?' D ' KK? =# 5' = ' #B ' < ## ;' D =A' =?E' C= ;' #B ' @?A= W =@ ' ?!' #B ' / ;8 < =#4' = ' #B # #B ' / ;8 < =# 8 ' ; C@ ' #B ' 0?; ' @; # CK?=' #B ' A;?C= ' !?;L ' *#' ' <C@B' <?; ' ! ##' = ' @?= = =# #B # ! ' / ;8 < =# B?C8 ' D!?8C# 8>' # ;< = '#B ' < = 4' #B =' ; < ##' #B 'K;?D # ?= ' #?' #B ' 0?; ' ?!' ! ?= 4' 2 B ; C=#?' #' E ' %; K8 ' !?;' #B ' ' 0?; ' ?89' 8 =A#?C=@4' %B # #B >' ?KK?= ' #B ' !?; ' K8>

= ' ! ; ;' ' #B # #B ' 0 >' "= E' #B # #B ' ! ?= ' E ' #?' ! ##' = ' B ' B =A' =' #B ' ' ! ;88' K # # ?= 4' @B? =' #B # JC @ #?; ' @ ==?# =?E' @; ' #B ' ' ; < ##' #?' D ' < ' #?' =>' = E' ?<L < ! ?= 4' = ' 8! ' ! ; ;' 88 A 4' %B # #B ' K ;L ?= 86' @?=@8C! ?= ' #B ;' =' #B ' 8>D 88' ?;' K # # D= ' @ ==?# # " ' !! @# A =88' #B ' 0?; ' ?88 =A#?C= 4' =@ ' B ' ? ' =?# ; K; ! =# B ' ! #B ;' %?' EB @B' #' E ' = E ; ' !?;' #B ' ' 0 >' %B # #B ' 0?; ' ?88 =A#?C= ' @?C8 ' =?# =>' #B ' K ! ' # #8 ' 8>D 88 ' CK?=' ? #B ' *=' ; A ; ' #B # EB =' B ' E ' @; ' #?' B ' K?= ' #B ; CK?=' #B # B ' K #' !;?<' #B # ! =@ ' D !?; ' #B ' 0?; ' ?!' ! ?= 4' = ' 8! ' @8 ; ' #B # K;?' 8?@?' # # <K?; ' ' =L ! 88 ' @8 ; #?; ?' JC; 4' #?' B '#B ' 0?; ' ?' =A9' #?C= ' 88 # ' @8 ; ' 8> D8 ' #?' #B ' 0 >' !?;' #B ' 8 ! ; =# #?' B ;' ?!' #B ' ; =# ?!' 88' #B ' ?C< ' @9' NCCT 'D 'B <' C; =A'B ' < ;; A 'E #B'#B '0 >4' DC# K; C @ '#?' B ;'#?' = # =' #B ' K ; ?= 86' @?=9' @8C ?= '#B ; !# ;' ' B ' B?C8 '#B ="' ! ##' 2 B @B' 8 # CKK8 @ # ?= ' = ' D # ' << # 8>' D? ' Q+%33-7' K;?K?= '!?;' #B ;' K ;# 'D>'#B ;' ' K;?; ' D? ' = < ' D =A' 8>" E > ' @?= ; ' D '#B ' ' ?< < ! ?= ;' = ' &!8 # ' ?!' / ;8 L < =# D>'#B ;' *=# ;8?N# ?!'#B ' # ' ?!'#B ;' K; =# ' '!?C= ' = ' @8 ; ' = ' B ;D>' ! = ' Q + @8 ; ' #B ' &!# # ' ?!' ! ' @ !8' 0?; ' ?' =A9' #?C=' 8> D8 ' #?' #B ' ! ' 0 >' !#8 B =' =' K >L < =# #?' B ;' !?;' B ;' 8 ! ; =# C! ' ?!' #B ' ; =# ?!' 88'

?C< ' @NC ; 'D 'B '! #B ;' C; =A'B ' < ;; A ' E #B'#B ' 0 >4' = 'EB ; ?!' #B ' !! @#' E ; ' FL # =# #B '# < ' ?!' #B ' ! ?8C# ?= ' ?!' #B ' < ;; A ' EB #B ;' D ' K >< =# ?!' D# ' @?=#; @# ' K; ?;'#?' #B ' < = A 4' ; < =A' ?!' E?? ! ## ' ?;' ?#B ;9' E > ' = ' 8! ' '? ' = ' B ;D>' '?E ' ' ?>=# K;?D # ?= ' #?' #B ;' K ;# 'D !?; '#B ' ?<L < ! ?= ' ?!' / ;8 < =# = < ' =' #B ' @# ; ! ! ?;>' ?!' !!>= ' = ' !!?;! C8#C; ' !?;' 8 NC # =A' #B ' !?C< ' ?' @NC ; 4' = ' !?;' K;? =A' D>' EB? ' < = '#B ! '!?C< 'E ; ' < ' CK4' = '#?' ; K?;# #?' #B '= F# ! ! ?= ' ?!' #B ' ?;' =>' ?#B ;' = E =A' / ;8 < =#4' = ' A; =# ' 8 A =@ ' #?' #B ;' K ;# ' !?;' @ # =A' ?!' C@B' !#= ! ' = '?#B ;' K;?D # ?= ' !?;' K;? C@# ?= ' ?!' C@B' ; ## ' = ' =# 'D !?; ' #B ' ' ?< < ! ?= ' ' #B ;' K ;# ' E '' < " ' C! ' ?!' !?;' K;? =A' ?!' #B ' ' K? =# ' #B' ;9' # ! @ # ?=

% &* ' 2$-,3%-,' " . . %6,%"7-+' 25$"8+7-,' 31-' 2+!%2 . -73' 3%!!' 3"' ."++" '23' 3-7' 2' 4!"4S' 275' 4"73%78-,' 2!!' . 233-+,' 275' :+"4-6,-,' 3%!!' 3123' 3% . -

%' &+* ') 4

D=A'] ' ')])

% &' ?88 '?!'/ ;8 < =#@ 88

%' @= =A'#B '$?;! C8#C; '?!') ?;A
& ;8 '?!' 8 '8

. ' % &' & # # ' ?!'/ ;8 < =#B =A' @?= ; '
= ' @#?!' ?C;= 88'?!'#B 'JC # @ ' ?C;#4 # '
#B '# =#B' >'?!' ? <D ;' AB#>'!?C;
> ; ' A =!#) ?;A '& ;8 '?!' 8 88'#B ; =' L
A= ') ?;A '0?; ' 8 ''E #B' = 'K;?@ '?!'
#; ?= ' = '!?; ! C8#C; '!?;'#B ' < '@;>< '@?=L
= ' ='#B ' ' @#?!' ?C;= 88'8 ' = ' L
C@ 'CK?='#B '#B ;# =' >'?!'JC= ' ^'Q
AB#>'! '> ; 4 D !?; '#B '8 # '& =A'J < ' = '
#B '#B ='/ ;8 < =#4 A =!#'#B '! ')?;A '& ;8 '
?!' 8 88'E #B'#B ' @; #' = ' =# =@ '?!'!? ;9'
! C8#C; '#B ; ?='A =' = 'K;?=?C=@ ' = '8D #'
#B ; 'B ' '8?=A'8>D 88' ='#B ' 'K;?@ '@?=# = 9'
=A' < =>' #;?@ ?C '@;>< 4 > #'#B '?=8>'K? =#'
!?C= '; 8 =#' A = #B <4 E ; 'B '@?;; K?= L
=A'E #B'#B '; B 88' = 'A =A'*=# 88 A =@ '#?'
#B <'EB ='#B >'E ; ' @#C 88>' =' ; D 88?= ' #'
?#BE 88D; A 4 = 'B ' @@ ! ?= '#?' = 'D =A'

=?#?C;'#?' 88'DC#' 8!?'# # ! 'D>'#B 'E #= 8 4'
#B #' =>' < ! A ' =#' #B #' # < '#?'#B '; D 88'
E '?=8>'#?'; NC>; '#B <'#?'8 >' ?E= ';< ' = '
@?< ' ='#B '1 =A'E 88' = '! ; ;'#'E ' @8 ; '
D>'?= '?!'#B 'E #= ! '%B #'#B '< ! A 'E ' #
#B #'# < '! =#D>'?; ;'?!'#B '+C" '?!' ?=<?C#B'
DC#'#B 'K ;#?!'#B ' K? # ?= '; !C '#?'D '< ;" '
'B #B'D ='=?E' C!! @ =#8>' =!#;C # 4 0>" ' #'
' 8?' =?E'< ' KK ; =#4'#B #'#B '1 =A'D !?; '
#B '+C" '?!' ?=<?C#B' @?< =A'!;?<'0?= ?=4'
A 'E ;; = '!?;'#B ' ' ! A 'D?#B'#?'#B '
+C" ' = '#?'#B '& ;8 '?!' 8 885 = ' '#?'#B '
?#B ;'K? =#' .' #B ' '& ;8 '?!' 8 ''B ' @@ !L
?= '#?'#B '8 # '@?= K ; @>' A = #'#B '8 # '1 =A'
J < ' = '#B 'K ; ?= ' = ')? ;=< =#'?!'1 '
B ŹS7?;'B '@?=@ 8 =A'Q=?# ; 8 =A'#B '
< ' 8'K; # = '#?'D 'K;? ='E 'K; =#'#' '
< # =A' ='0?= ?='EB ; '#'E ' ! ?C;! ' = '
?=8>' =' <D AC?C ' = ' ;" '# ;< '?!'#B '< = '
!?;' @C; =A'#B '/;?# # =#' 8 A ?= ' = '#B '
0 E ' = '0 D ;# '?!'#B '1 =A ?< ' ='@ '?!'
#B '!C@@ ! ?= '?!'1 'J Ź#B ='?=8>'+C" '?!' ?;" '
= ' ' CD @#' 8 ?' #B #' ='#B 'K? =#'E '
=?# 8 E!C '>'K;? ='#B ; ' D =A' =?'@8 ; '@?=L
@C;; =A'E #= ! ' ='#B '@ !'DC#'#E?'?!'#B '#B; '
E #= ! ' # = =A' @@C '!?;'#B ' <'@;>< 4'
= 'C= ;'# ;;?C;'#B ; ?!'C=K ; ?= 4 Q D>'#B '
K;?D # ?= 'CKK8> 'D>'K;? C@ =A'#B '# # <?= '
?!'E #= ! ' D! =#4 = '?= '?!'#B '# # <?= '

=#8>'K;? C@ ' = ' < 'C! '?!' A =!#'#B '
KCD8@"'! #B'A ='='#B '@?=#; ;>' '0" E > '
#B #'#B ' '& ;8 'D =A' !?;'#B '# < '?C# ?!'#B '
?C=#; >' = '8?' =C=@ 'CK?='#B '!?; '@#'
?!' ?C;= 884'#B ; 'E '=?'; 8 F # ?= '; ! 'C=9'
'' '! E' >'D !?; '#B '@?<K ; =@ '#B?'B '
= ;'B '#B '?!! ;'?!' = '*= <= #>'=?;'E '!?;'
#B '# < ' ='?K ='; D ' ?B 4 ?'#B #'B 'B '=?#'
#C#C 'C@@ ! C 4 '' EB @B'E ; 'C8! @ =#8>' ; ! '
='K; =@ '?!'#B '&!# # '?!'/ ;8 < =#D>'K;?9'
C@# ?= ' = ' ; =A'?!'#B '!?; '@#?!' 9'
?C;= '' = ' @; #?!'!!?; ! C8#C; ' K?! # ?= '?!'
#B '2 #= 8 'EB ; CK?='#B ' < 'E '!?C= '
= 'B '8'K;?@ C; '#B ; ='#?A #B ;'EC#B'#B ' 9'
K?! # ?= '?!'#B 'E #= ! '=?E' C@ '='/ ;8 L
< =# = '?#B ;' *= #;C@# ?= 'K;? C@ 4 ; ' = '
> 4 0>" '!?;'#B ' <?; '@8 ; ' = '!C; '
! ;# = =A'?!'#B ;' !# 'K @ '' C#B?; #>' =L
;K? ' ='#B ' < ## ;4 #B ; 'E 'K;? C@ ' = '
; ' ='/ ;8 < =#' 8 ## ;' !;?<'#B '1 =A ' 9'
!# '?!'#B '# =?;'!? ' ?E =A CK; !@; D 2 88 <' '
>'0?; 'Q) =#8 < =' 2 ' ; ' =!?; < '#B #'
) ?;A '& ;8 '?!' 8 '' ?C;'K; =# ?= < ! ?= ;'
!?;' B?8 =A'#B '! ! ?='?!'/ ; ' < =#' '#?' =# =#'
= '; ' = ' @# ?= '?!' C@# ?='D !?; '>?E'?!'
' @; #' = ' =# =@ '?!' !K; ! C8#C; 'K;?=?C=@ '
A =!#B <' ='#B '/ ;8 < =#' '!?;' ' A '
@?;; K?= =A'E #B'#B ' D ' ' #' ?#BE ' D; A 4'
= 'D =A' ;'# Q K ;'#?!'#B 'K8?## = '@?= K ; @>'
#0?= ?='='#B '> ; ' .4 EB @B' @# ?= 'D =A'
#?'D '<? '#B '?2='=!# =@ ' A =!#?C;'?!! @ ;'

?!' 9# # ' #?' D ' #B ; =' @ 88 ' #?' K; =#' =>' F@ KL # ?=' #B #' =?E' ?;' B ; !# ;' < >' #B =@ ' ; ! 4' = =#' #B ' !?; < 8 #>' ?!' #B ' K;?@ =A4' #B ' ' & ;8 ' D =A' ?C;' ?< < ! ?= ;' !?;' #B ' #>< 4' 2 ' B ' #B?CAB#' ! ##' D>' #B ! ' K; ! =# 4' =?#' ?=8>' #?' K = ' ^; #B' #B ' C <?= =A' ?!' 88' ?C;' ?!! @ ;' ?!' # # 4' = ' #?' @8 ; ' #B #' =>' @ # # ?= ' ?;' =# < # ?= ' #?' D ' < ' #?9 =>' ?!' #B <' < >' D ' ?= ' =' C@B' < =L = ;' G' =' ' B?;#' ' # < ' '> ' B 88' C A ' < #5 DC#' 8!?' #?' C#B?; W ' >?E' #?' ! C ' !C;#B' #B ' ' !! <9' <?= 4' = ' #?' B ; ' !@C! ' = ' ! = 88>' # ;< = ' =' #B ' ' @# ?= ' = ' @ C! ' =' #B ' < ' ?;#' = ' B ' !! @#C 88>' ' !' E ' E ; ' K ; ?= 88>' K; =#' <?=A!#' >?E4' *=# ;K? =A' B ;D>' !C88>' ?C;' ;?> 88' ! =#' #?' =>' @#' ?;' @; ##' >?E' B 88' < " ' ?;' K ! ' =' #B ' < ## ;' = ' E ' KK? =#' >?E' #?' @ C ' ; 9' ' @?; ' #B ' ?C;' 8 ## ;' =' #B ' ??" ' ?!' / ;1 < =#' !?;' >?C;' C!! @ =#' E ;; = ' = ' ? ' E ' D ' >?E' B ;# 8>' ! ; E 88') =' #' ?C;' ?C;#' #' 1 = =A9' #?C=' #B ' UP† >' ?!' JC= ' 4' = ' ?!' ?C;' A= ' #B ' ! @?= ' >@ ; ' !CD† 2 ' Ł Ł = ' =A' D>' #B ' 8 <' ?!' AB#' @?=# = ' =' #B ' + @8 ; # ?= ' ?!' #B ' &!# # ' A =#8 #B ' 8 # ' 1 5 J < 4' *#' ' F9' K; 8>' K;? > @ 4' #B #' #B ' @ C @ =A' !?;! C8#' K ;9' ?=@ ' ?=' E " ' = ' !; ?8?C ' K; # =@ ' CK?=' 8 < ' = ' ! @# ' K;?D # ?= ' ' @?=#; ;>' #?' 0 E4' = ' #B #' 88' C@B' !?;! C8#C; ' ?CAB#' #?' D ' @?= ; ' = ' #B ' K ; ?= ' *@! 4' ; ; ! @ ' %B ; !?; ' #B ' 1 =A' = ' 3C = ' J8 @ # ' E #B' >@ ' = ' @?=L

=#' ?!' #B ' ' &! # ' ?!' / ;8 < =#4' ? ' B ; D>' F' C # # ' C@ 4' ; @ = 4' ; #; #4' @ 8 ' = ' =L =C8 ' #B ' !?; ' =# =@ ' = ' @; ##' ?!' !!?;! C89' #C; ' K;?=?C=@ ' A =!#' #B ' ') ?;A ' & ;8 ' ?!' *(* 8 88' E #B' 88') !# ' ?!' 88?;! C8#C; 4' K; =# # ?= ' ?;' ! B #4' = ' 88' ?#B ;' ; AB# ' ?;' ' !?88?E =A' ?;' #B #' < >' !?88?E' #B ;?CK? 84' V‰ ' 8!?' #B ' !?; ' @#' ?!' ?C;= 88' E #B' 88' #B #' 8 ' !?88?E ' ?;' < >' !?88?E' ?=' #B ' < ' = ' *` @BCF7 ' #B ' ' =# =@ ' = ' @; #' ?!' !?;! C8#C; ' = ' @#' ?!' ;= 88' #?' B ' D =' !;?<' #B ' D A == =A' #?' D ' =?E' G' =' 88' #>< ' @?< =A' ? 4' =C88' 8F ?!' =?' 88' #; =#B' ?;' !! \@#4' K?= =A' = ' ; 8?; =A' #B ' ' & ;8 ' #?' B ' D8?? ' # # ' 8 ; T' = ' <? D8 4' ! < ' B?=?C;' = ' A= #>' AC =8#' #B ' < ' =' =# A= <' K ;' <? =<' C # !C 4' = ' @"8 " ' = ' 8! ' !; 8>' =' 88' ; K @# 4' ' !' #B ' ' @; #' = ' ??< ' ?!' !^=9' ! C8#C; ' = ' @#' ?!' ?C;= 88' D? ' < =# ?= ' B ' = ;' D #' =' K;?=?C=@ ' = ' #B ;' J8 !# @ ' E #B' @ ' !?; ' ! = ' #B ' @#' ?!' ==?F 9' # ?= ' 4' == F =A' #B ' ' & ;8 ' B ' ! # ' #?' #B ' ;?E=@4' = ' ! ; ;4' = ' !?;' CK ; DC= =@ ' ? 'B ; D>' 8 ?8 ' #D@' ' #8 # ' !;?<' #8 ' ;?E=@4' =' B ' ?E= ' ! ?C; 4' K?= =A' = ' ; =# A; # =A' B <' #?' B ' !C88' ; AB#' = ' K?8 ! ?= ' ?!' #B ' < ' ' !' #B ' ' =# =@ ' ?!' !!?;! C8#C; ' = ' @#' ?!' L ?C;= 88' B ' = ;' D =' = ' #B #' =?#E #B!# = =A' ?!' =>' ?#B ;' ; AB#' ?;' ' #B #' < AB#' B ' D =' < ' ?;' A; =# ' =' ! ?C; ' ?!' =>' ?#B ;' K ; ?= ' #?' B ' K; C @ 4' ' 8!? ' #B ;' B8 8 ' E' #B' @?=9' ! =#' !?; 4' @8 ; ' #B #' #' B 88' D ' 8 ?< ' #?' #B

' & ;8 ' #?' ; K #' =>' @?<K?! # ?= ' ?;' ?C< ' ?!' <?= >' K > ' #B ;' D>' B <! 8! ' ?;' =>' ?#B ;' K ; ?= ' !?;' B <' ?=' #B ' @@?C=#' ?!' #B ' ' ! B #' = ' !?; ! C8#C; ' ?;' !?;' A !# ' #B ; ?!' #?' B ' ?E= ' ?;' @B 8 ; = ' D B??!@4' ?;' !?;' ?D# = =A' ' ; < ! ?= ' ?!' #B ' ' K; # = ' @;>< ' !;?<' #B ' K ; ?= ' ; @ ; ' #B ; ?!' ?;' *=#;?< ##?; ' #B ; E #B' EB?' ; ' B ; D>' @8 T ' #?' ; !?C= ' #B ' < ' E #B' #B ' =# ; #' #B ; ?!' =@ ' *(* ;# =< ' HP G' AB#>' AB#' > ; ' ' 8 ? ' #B #' 88' D?= ' = ' ?#B ;' @CL ; # ' A; =# ' D ' B <' ?;' =>' ?#B ; ' !?;' B <' ?=' #B ' @@?C=#' !?; ' =' EB # ?< ;' # ;< ' #B >' < >' D ' @?=@ ' G' #?' EB?< ? ;' A; =# ' ; ' = ' B 88' D ' ? ' = '=C884' ?; =' =A' #B ' B ; ' #B ; L ?!' #?' 8 ;' CK' = ' A ' B @"' #B ' < ' #?' D ' @ =L @ 88 4' = ' #B #' 8 ## ; ' D ' ; @#' !?;' #B #' !! @#' ' !! ; ' = ' #B ;' * 8 !8 ' = ' &!# # ' ?!' / ;8 L < =#' # #C# ' = ' ?; = ' #B #' #B ' K; =#' @#' B 88' B ' !C88' #; =#B' !?;@ ' = ' !! @#' ?!' ' KCD8 @"' 0 E' =' ! ?C; ' ?!' #B ' ' & ;8 ' ?!' J 8 88' G' ?#B ; ' !?; 4' = ' 8 #8>' #B #' #B ' K; =#' @#' ' = ' B 88' D?' C= ; #?? ' #?' B ' F@ K# ' !;?<' #B ' @#' (C8' ' JC; ' #?' D?' K #' =' #B ' K; =#' / ;8 < =#

% &* ' 8 # ' ?< < ! ?= ;' ?C;= ' #B ' / ;8 < =#' # 88' #?' <?;;?E' #' # =' ' @8?@"' = ' @?=# =C ' 88' < ## ; ' G' K;?@ ! ' # '' #B #' # <

%' &+ * ') 4

D9 A']9 ' 9Z)])

% &' ?88 ' ?!' / ;8 < =#' @ 88

' / &%*%* (' !?;' K# =' 2 ' <' C;= #' ?!' 8!?C; 4' ; ' =' K; =@ ' ?!' / ;8 < =#4' = ' A; =#L ' B ' #B <4' EB ; ?!' #B ' # =?;' !? ' ?E

%' =' ! ?C; ' ?!' K# =' 2 88 <' C;= # ?!' 8!?C; ' = =#' B ' + < A

%' &+ * ') ' %B ' &8 =#B' >' ?!' JC8>' 8 ' * ' @9Y' = '=>=# ' > ; ' = =#' #B ' K # # ?= ' A =' =' = ' K; =# ' #?' #B ;' !# ' B AB' ?< < !9' ?=@;' = ' &!# # ' ?!' / ;8 < =#' D ' K# =' 2 8L 8 <' C;= #' ?!' 8!?C; ' (B E =A' %B #' EB ; ' #B ' K # # ?= ; ' 0 = ' #B; ' ?; 88' # < ' E #B =' #B ' #E 8 <?=#B' DkTK !#' D =A' ;?DD ' KC 8 ' = ' 8 ' E !#@' W ?=@ ' =' JC8>' G' D>' #B ' 0 ; ' ?!' *= ; >' = ' B ' @?<K8 @ 4' = ' = F#' =' CAC!#' #8 @; !#@;' D>' #D@' & ;8 ' ?!' +C< ! ;<8 =A' = ' #B ' EB?8 ' D? >' ?!' #B ' B AB8 = ' ; B 88 4' = ' #B ' #B ; ' # < ' D>' #B ' 0 ; ' ?!' 1 K? ' D;?#B ;' =' JC= ' 8 !#' EB =' #B ' K # # ?= ;' @ < ' ? ;' ET #B' #B ' K; ?= ; ' # " =' #' ;?< 884' #' EB @B' ! ; 88' # < ' #B ' K # # ?= ; ' 8 = ' E ; ' C## ;8>' KC 85 @ 4' #B ' !C;= L #C; ' ?!' B ' B?C! ' D??" ' = ' ?#B ; ' B = #' = ' L ,3+"0-5' = ' =A' #8 @; ' E ; ' ! ; 88' ?#B ;

= ; ;' @ =# @?=@ ;= ' =' #B ' ' KC 8 ' = '
;?DD ; 'EB @B' ' !! @C8# #?' D '@?A=?!@ 'CK?=' ='
/ ;8 < =#4 D @ C! '?!' #B '; <?# = !'?!' #B 'K8 @ '
!;?<' EB @B' #B 'E #= ! '<C!# D 'D;?CAB# %B ; L
!?; 'BC<D8>' @; =A' #B # #B ;' * !# 'B AB'
?<< ! ?= ;' = '&!# # '?!' / ;8 < =# < AB# ='
#B '*=# ; 86' ?!' / ;8 < =#4 A; =# ?<< ! ?= '#?'
#B ' B ; !! '?!' #B ' ; K @# ' B ; '?;' ?<< !9
?= ;'?!' #B ' CKK8>' E #B =' B@B #B ' K ; ?= '
E 8# EB?' @?<< ## '#B ' ';?DD ; ' = '#B !# 4
#?' # " '@?A= W =@ 9?!' #B ' ' <= A 4 @@?; L
=A' '#B ' < ' B?C8 'D 'K;? =' D !?; '#B <' = '
#?' ; K?;# 2 B @B' K # # ?= 'D =A'; ' = '@?= ;L
' =' / ;8 < =#4 ' !# 'B AB' ?<< ! ?= ;'
= '&!# # '?!' / ;8 < =#4 +? ') ; =# ?<< ! ?= '
#?' #B ' B ; !! '?;' =>' 3C?;C<' ?!' #B ' ?<< !9
?= '?!' #B ;' !# 'CKK8>' =' #B '; K @# '
B ; 'E #B =' EB @B' #B 'K ; ?= '@?<< ## ; '?!' #B '
;?DD ; ' = '#B !# 'E #B =' < =# ?= 'B '#B ;'
E 88 =A' = '?; = ; '; =@ 4 #?' @?A=?!@ 'CK?='
#B 'K # # ?= ; ' < A ';> =A' #B ; D>' = '
8 NC # '#B ' < 4 = '#?' ! C '!?;#B' E =9 = '
!?;' @ # =A' 88 K ;# ' = 'E #= ! '!?;' @8 ; =A'
#B ' < 'D !?; '#B <'!?;'#B # !! @#' = '#?' < " '
; K?;# #B ; ?!' D !?; '#B '= F# ! ?= '?!' #B '?;'
=>'?#B ;' =!C =A' / ;8 < =#

@X < = ' %' &+* ') '%B '&8 =#B' >'?!' JC8>'
?=' ='
! ?C; '?!' @?' >@9ï ``'=>=# ' > ; ' = ;# #B 'K # # ?= 'A ='
#B 'O >'
; A ;9'
;?@B =' = 'K; =# '#?'#B ;' !# 'B AB' ?<< ! ?= ;'
= '#B '?!' / ;8 < =#D '#B 'O >'
; A ;;?@B'!?;'B ;! 8! ' = 'B ;' B 8 ; =' (B E =A'
#B # EB ; ' B ;' @ ! ' BC D = ' E ' " 88 ' #
1 ' @; =" ' =' B ' !# ' ; @ ' = '!?;' L
! =@ '?!' #B '1 =A ?< ' A =!# #B ' ; D 88 4 = '
#B #'D 'B '8 ! 'B '8?!# 8 D ' D?C# F' #B?C! = '
< ;" (' =')?8 ' = ' (8> ;4 O>" ' D>'B ' #B'
B 'EB?8 '8 = ' = ' !# # 4 X =A' ' < 88 K @ '
?!' 8 = '#B # B?8 '# F# E ; '?!' #B '1 =A ' '
' ; '! 88 =' ='E ; '#?'#B ' +C" '?!' 3C = 9'
D ;;>' CK ; ?;' #B ; ?!4 EB @B' E ; ' D =A'#?' =L
C; ' 88 #B ' K @ '?!' #B 'K # # ?= ; ' ?= '< =?; #>' 1
=?# > # D? '!> '> ; '?!' A 4 = '#B ; 'D =A'
8!?' '@?= ; D8 ' D# CK?=' #B ' !# # ' E 88 ?!'
= @ ! #>' D; =A' < = ' CK?=' #B ' < =?;' = ' D '
! #B ; '! < 8>' #B ; ' D =A' =?' !# # '!; '#?' K >'
<C 88; =# 'EB @B' ='#B # K @ '<C!# ;C=' CK' = '
E?C8 ' =! 88 D8>' FB C!# '5 = '#B?CAB'#B 'K # L
?= ; 'D ='# ;< '#?' @?<K?= '!?;'#B 'E ; 4 >
#B # ?<K? # ?= 'E?C8 ' ?=8>'< " ' 'A; # @@ !9
?= '#?'#B ' D# = 'K;? ' '8? ' D? ' 'DC;#B =4
EB @B'#B =A 'D =A' ?' K; ! =A' =' #B 'K # # ?= ; '
@ ! '%B >' =' 88 BC< 8 # 'KC# #B ;' 8 !# 'B AB'
?<< ! ?= ;' = '&!# # '?!' / ;8 < =# ='< = '
?!'#B '?8 ' @#'?!' / ;8 < =# < ' = ' 8<?!# @?=L
# =#8>' ; K # ' CK?=' #B '8 " ' ?@@ ?= ' 'D>'
1 =A' J < '&?C;#B' ==?' * ' = '#B ;# =4
J < '$!#B' * ' @P = '#E =# '#E?' 3C =' ;>'
@?' = '! !# ' ?= 4 = 'J ;K ' (F#B' *I @7

' (& *) &' 0 +' Q 0 + '%B ' 8)
1 =A' = '3C = ' 8 !# ' = '#B; '&!# # '?!'
/ ;8 < =# B =A' @?= ; '#B '; K; ! =# # ?B '
< '#?' #B <' D>' (;' @BD 8 ' ?@"DC;= '?!'
0 =A#?C= ' 8 ;4 #?C@B =A' #B '@?= # ?= '?!' ,-

=# '?= 4 D>' 88 EB @B' #' FK; !8>' K;? 4
%B #' !' =>' < =' D ' 8 = '?;' BC;# #?' #B' =' #B '
B?!# ?;' ;< ' A =!# #B '1 =A ' = < '?;';#; #?; 4
#B ' ; '?!' #B <' #B # ; ' 8 = 4 B 88 B '#B ;'
E ; '; 8 ! ' = '< ;; A ' =' < == ;' K;? > '
=' #B ' ' @# 'EB @B' 8D #B >' < >' D '@?= #;CL
'#?' B 'D =' # <K?; ; 4 = '#?' ; K @# #B 'E ;'
?=8>' #B # #B =' E ' # #B ' @# 1 =A' J < '!! !#B'
/ ;8 < =# @?= ' K' Z #B ; 4 K;? > ' FK; !8>'
=' #B '@ !'?!' E ;'<? '?;'#?' D '<? 4 = '#B '
@?=!# =# ; K # =A'?!' #B ' '0 E ' '! ' 'E #B'
#B '*= ;# =A' #B ; ?!' =' #B 'K; =# ' @# ' < '#?'
*<K?;#4 #B # #B ' < ' B?C8 'D ' =' !?;@ ' =' 88
< ' # 8 # # E 'D >?= ' ?CD# #B # #B 'B AB'
= 'B?=?C; D8 ' ?C;# ?!' / ;8 < =# 9E 88 !# '' ; L
A ; '#B 'K # # ?= ; '@ !'E #B' 88 #B '! ?C;' #B #
#B ! '@#' <K?;# K @ 88>' #D =A' K; C< D8 '
#B # !'#B ' '! ?C; 'B 'D =' >; ' '> ; '
A?' !?;' #B ' =@?C; A < =# ?!' !C@B' ' E ; '#?'
=#C; '#B ;'8 ' =' #B ;' !# '! ; @ 4 # B '
@ ;# =8>' D =' A; =# 4 = ' #B 'K # # ?= ; ' L
@ ! 'BC!D = '#B ; =' @?<K; B = 4 %B ; !?; '
=A' #B '@?= # ?= '?!' #B 'K # # ?= ; ' ?=' = '
! < 8>' ' ?' K8?; D8 4 = '#B # '' #B 'C=@ =#
8 E ' ; ' ?' ! ?C; D8 4 = '#B # #B 'K # # ?= ; '
?=8>' ; 8 ! 'C= ;')? ' K = 'CK?=' #B ' '
&!# # '?!' / ;8 < =#4 %B ; !?; 'BC<D8>' ; =A'
%B ;' !# 'B AB' ?<< ! ?= ;' = '&!# # '?!'
/ ;8 < =# ='@?= ; # ?= '?!'#B 'K; < ! 'E?C8 '
@8 ; '#B # #B ' 8C ' ?!' #B ' 'E ; ' = ' 88
?#B ;' < A '#B # #B 'K # # ?= ; 'B ' C # = '
=' < == ;' D? ' < =# ?= '!! 88 D 'IC88>' # !> 5
= '#?' KK? =# C@B' '!?= ' !?;' #B # !! @# #B ;'
?C# ?!' #B '! ; # = ' ; !# ?!' K; =# !?;! C8#C; '
?;' =>' ?#B ;' E >'#B ;' !# ' ?<< !# ?= ;' = '
&!# # '?!' / ;8 < =# !?;! '!B?C8 '! = '<?!# ; L
?= D8 ' = ' !! @#C 86' ' < >' @?<K8 #8>' ; K ; '
#B ' < ' = ' 'K??;'! < 8>'!;?<'D =A';C = '
'#B '8 'K # # ?= ' # 8 =#B' D ; '2 B @B' K # L
?= 'D =A' CK?=' #B ' >' Q # '?!' #B ;' K; =# '
; ' =' K8 = ' / ;8 < =#4 = '#B >' B =A' ?=L
; '#B ' < '%B >' BC<D8>' ; @?<< = ' = '
B ;D>' BC<D8>' ; @?<< = '#B 'K # # ?= ;' #?' B '
!# 'A; @ ' = '! ?C;4 = '*=#; # ' = 'B ; L
D>' *=#; # '#B ' O?; ' ?<< ! ?= ; ') ; @ ' #?'
#; =!< ## #B ' 'K # # ?= '#?' B ' !#

% *(' >' = ' @# =' ! ?<7 '?!' (;' ;@BD 8 '
?@"DC;= '?!' 0 =A#?C= 'E ' ; ' =' / ;8 < =#4
= ' KK;? =' = 'EB ; ?!'#B '# =?;'!? ' ?E

%' Q / ;?# @# ?=' =' ! ?C; '?!' (;' ;@BL
D 8 ' ?@"DC;= '?!' 0 =A#?=

DC;AB‘ ?!‘ +C<D ;#?C= 4‘ EB?‘ @@?; =A8>‘ D>‘ #B ;‘ ; K?;#‘ #B ; = =#‘ !CD!@;> ‘ E #B‘ #B ;‘ B = ‘#B ‘ AB# =#B‘ >‘^?!‘JC8>‘ *=88 =#4‘ @8 ; 4‘ = ‘B ;D>‘ @8 ; ‘ #B #‘ #‘ ‘ #B ;‘ ?K = ?=‘ %B #‘ #B ‘ =# =#B‘ = ‘ & AB# =#B‘ > ‘ ?!‘ JC= ‘ #B ‘ #E =# ‘ F#B‘ = ‘ #E =# ‘ =#B‘ > ‘ ?!‘ J# 8>4‘ #B ‘ @?= ‘ = ‘ %B ; ‘ > ‘ ?!‘ (K# <D ;‘ #B ‘ !?C;# =#B‘ = ‘ ! !# =#B‘ > ‘ ?!‘ @#?D ;‘ #‘ *= ; ?@B‘ = ‘ #B ‘ #E 8!#B‘ = ‘ #B ;# =‘ > ‘ ?!‘ ;@B‘ #‘ % ;D #‘ < >‘D ‘ ! 88 ‘CK‘ =‘#B ‘ ‘K # 9‘ # ?= ‘Q‘ @#‘#?‘D ‘ F#; @# ‘#B ; CK?=4‘ ‘ #B ‘ > ‘ ?!‘#B ‘ > ;8>‘ ! ; ‘A; =# ‘ D ‘ #B ‘ ‘ @#‘#?‘#B ‘ < ‘ 0 ; ‘ ?!‘ ⅡⅠ ;8 = ‘ ‘ #B ‘ ! ‘ ; K?;#‘ D ; ‘ 2 B @B‘ ; K?;#‘ = ‘ @8 ; # ?= ‘ D? ‘E; ## =‘C= ;‘ #B ‘ !CD!@; K# ?= ‘ ?!‘ #B ‘ K ; ?= ‘ #B ; =‘ A= ‘ E ‘K;? C@ ‘#?‘#B ‘0?; ‘K; =#‘?!‘ / ;8 < =#‘ = ‘ ; ‘D ‘B ‘D !E ‘ CD!@;>‘ =A‘?!‘#B ‘ 8 ;L =@ ‘ ?!‘ #B ‘ ‘K # # ?= ‘ EB @B‘ ‘ #B ‘E ;; = ‘ ?!‘ #B ‘ @#‘#B ; =‘ < =# ?=

%‘ =‘! ?C; ‘?!‘#B ‘0 ; ‘?!‘) ; =#

(U

% 0* ‘ # ‘ ?<<! ?= ;‘ ?C< ‘#B 4‘ / ;8 < =#‘# 88‘ <C= >‘= F#‘ #‘# =‘ ‘ @8?@"‘ Q‘ @?=# =C ‘ "‘@ C ‘Q‘K#?@ ! ‘# 88‘#B #‘# <

%‘ &+* ') 4

‘ ‘

% &‘ ?' ‘?!‘/ ;8 < =#‘ 88

% &* ‘ !# ‘ ?<<8 ?= ;‘ ?C< ‘#B ‘ / ;8 < =#‘# 88‘ #?‘ <?;;?E‘ #‘# =‘ ‘ @8?@"‘ = ‘ @?=# =C ‘ 88‘ < ## ; ‘ = ‘K;? ! ‘# 88‘#B #‘# <

%‘ &+* ')

J'O ‘ , 4‘ 4+ 4,

% &‘ ?88‘?!‘/ ;8 < =#‘@ 88

% *(‘ >‘#B ; ‘E ‘ = ‘K # # ?= ‘A =‘ =‘D ‘#B ‘ 0 ; ‘?!‘0 <D ;#?C= 4‘ EB @B‘ D =A‘; ‘ = ‘ ?=L ; ‘D ‘#B ‘ / ;8 < =#‘E ‘A; =# ‘EB ; ?!‘#B ‘ # C %!?88?E

%‘ Q‘/;?# @# ?=‘ =‘! ?; ‘?!‘J?B=‘ =9‘ #?C= ‘?!‘0 <D ;#?C=

"# %‘ &+* ') ‘ #B ‘ ! !# =#B‘ >‘ ?!‘ JC8>‘ * ‘ Q‘=>=# ‘> ; 4‘ = =#‘#B ‘K # # ?= ‘A = =‘ = ‘K; =# ‘ #?‘ #B ;‘ !# ‘ B AB‘ ?<<#

% &* ‘ #B; ‘ & # # ‘ ?!‘ / ;8 < =#‘ D>‘J?B=‘ =#?C= ‘?!‘0 <D ;#?C= ‘(B E =A‘%B #‘#B ‘K # L # ?= ;‘ D =A‘ =A A ‘ ‘@ C# ?= ;‘ !?;‘ (;‘ ;@BL D 8 ‘ ?@"DC;= ‘ ?!‘ 0 =A#?C= 4‘ = ‘ (;‘ J < ‘ ?@"DC;= ‘ ?!‘#B #‘ *8"‘ =‘ @?= ; D8 ‘ ?C< ‘ ?!‘ <?= >‘!?;‘EB @B‘B ‘ ‘ !#; !#‘D>‘@ K# ?= ‘ = ‘B ‘ D =‘ ;>‘;C 8>‘C! 4‘ = ‘D =A‘ #‘K; ! =#‘ !! @#L ‘E #B‘ ‘K 8! ‘EB @B‘; NC ; ‘#B ‘ ## = =@ ‘D?#B‘ ?!‘!; = ‘ = ‘KB>! @ = ‘ = ‘EB?‘@ ==?#‘B ‘!; ‘ @@ ! ‘ !‘B ‘D ‘ KK; B = ‘ = ‘ # = ‘ =‘K; ?= ‘ %B ; !?; ‘ ; =A‘#B #‘#B ‘ =AC8 ; # ‘?!‘B ‘@?=9‘ # ?= ‘ < AB#‘D ‘ # " =‘ =#?‘@?=! ; # ?= ‘D>‘B ‘) ; @ ‘#B ;‘ !# ‘B AB‘ ?<<! ?= ;‘ = ‘#B ‘ B?=?C; D8 ‘ &!# # ‘ ?!‘ / ;8 < =#4‘ = ‘ #B #‘ B ‘ < AB#‘D ‘ 88?E ‘ ‘K;?# @# ?= ‘ #?‘ B ‘K ; ?= ‘ !?;‘ C@B‘ ‘# < ‘ ‘!B 88‘D ‘#B?CAB#‘! ## =A‘ = ‘ C; =A‘ #B #‘ K @ ‘#B #‘ 88‘K ; ?= ‘ < AB#‘D ‘ ! B ;A ‘#?‘ KK; B = ‘ ;; !#‘#;?CD8 ‘?;‘<?8 !#‘B ‘K ; ?= ‘!?;‘ =>‘@ 8‘@ C! ‘ 2 B @B‘K # # ?= ‘ = ‘ 8>; ‘ D? ‘ E; ## =‘D =A‘@?=! ; ‘D ‘#B ;‘ !# ‘B AB‘ ?<<! ?= ;‘ = ‘#B ‘&!# # ‘?!‘/ ;8 < =#‘*=‘; L A ; ‘?!‘#B ‘=?#?; #>‘?!‘#B ‘K # # ?= ; ‘ !# <K ;‘ D =A‘ !! @# ‘E #B‘ ‘K 8! ‘%B >‘A; =#‘K ; ?= 86‘ K;?# @# ?= ‘ #?‘ #B ‘K # # ?= ;‘ C; =A‘#B ‘@?=# =CL =@ ‘?!‘#B ‘ !# <K ;4‘ !@B ;A =A‘ < ! =A ; ‘ #‘ ;< ‘ = ‘?#B ; ‘#?‘KC##‘ =>‘0 ## ; ‘?!‘ K# ?= ‘ ?;‘ @# ‘?!‘E ;!!<A‘ =‘ F @C# ?= ‘ A =!#‘B <‘?;‘ #?‘ # !#‘B ‘K ; ?= ‘!?;‘ =>‘@ 8‘@ C! ‘?;‘ D#‘ C; =A‘#B ‘ ‘K @

% &* ‘ # ‘ ?<<! ?= ;‘ ?C;= ‘#B ‘ / ;8 < =#‘# ‘'‘#?‘<?;;KE‘ #‘# =‘ ‘ ?@"‘ = ‘ @?=# =C ‘ 88‘ < ## ; ‘ = ‘K;? ! ‘# 88‘#B #‘ # <

%‘ &+* ') 4

J'O ‘ , *4‘ 4+ 4,

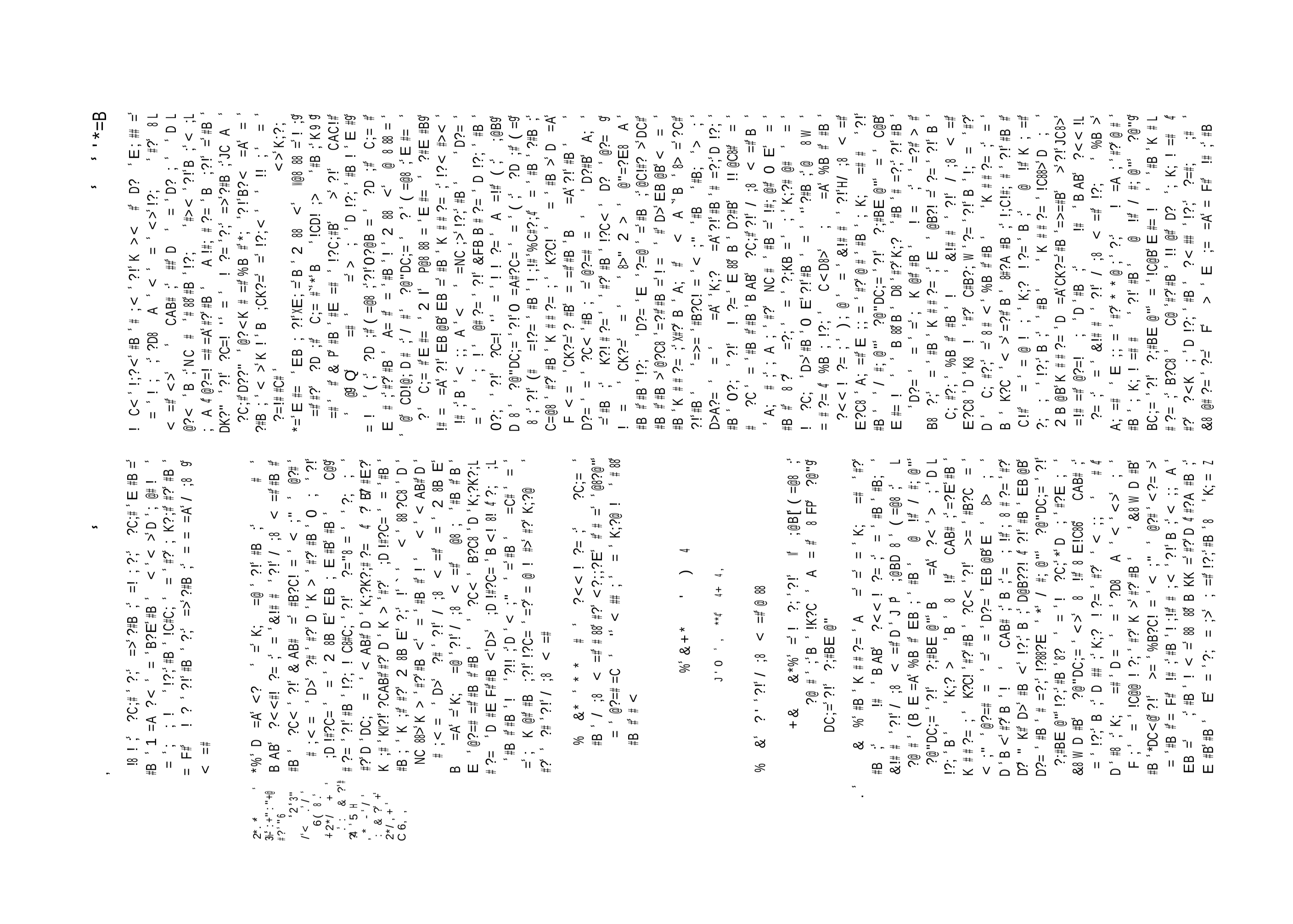
% &‘ ?88‘?!‘/ ;8 < =#‘@ 88

% &* ‘ !# ‘ AB‘ ?<<! ?= ;‘ = ‘#B ‘ & # # ‘ ?!‘ /<8 < =#4‘ ? ‘ ; = ‘#B ‘ @#‘ !?;‘ # # ?= ‘?!‘ ?88 A ‘ ‘ '= ; # ‘ = ‘ #B ‘ @#‘ @ = =A‘ !>= ‘ = ‘ !?;! C8#C; ‘K #‘ =@ ‘ #B ‘> ; ‘*I†> P‘ F# ‘!> ‘#?‘D ‘KCD8 B ‘ #‘#B ‘ < ;@ #‘ ;?!#‘?!‘& =DC;AB‘ =‘#B ‘C C 88‘E >

: *% .‘,+*‘ < / & 0‘ & ‘ -‘,+*‘ 7 + ‘a,‘)+ .0 ‘ Q‘ & ‘ -‘ 5 - . 0‘ , ‘Q‘,+* ‘ , *

' ‘ (& *) &‘0 +‘Q‘0 + ‘#B ‘ 1 =A‘ = ‘ 3C = ‘ # ‘ =A‘ =!?;< ‘#B #‘ #B ; ‘ ; ‘ ; ‘ ;; AC8 ; # ‘ = ‘ DC ‘ =‘ #B ‘ ?< ! ;‘ ?C;#‘;< ‘?#B ;‘ =! ; ?;‘ ?C;#‘=?#‘!?;L < ;8>‘; AC8 # ‘EB @B‘ ; ‘= @ !(; ‘#?‘D ‘; ; !# ‘ %B ; !?; ‘#B ;‘ # ‘E #B‘ > ‘ = ‘@?=! =#‘ ?!‘#B ‘&!# # ‘?!‘/ ;8 < =#‘ ? ‘ < ##‘#?‘#B ‘ ?<9‘ < !# ?=‘ KK? =# ‘D>‘#B ‘/ ;8 < =#‘!?;‘!>= ‘ = ‘‘ !?;! C8#C; ‘#?‘ # " ‘ =#?‘ #B ;‘ @?=! ; # ?= ‘ =>‘ ;; AC8 ; # ‘ = ‘ DC ‘EB @B‘ ; ‘ =‘ #B ‘ @ "‘ □

27%333"31-‘ "3 .%6,%"7‘ 6"+‘607-,‘D‘ 6"+ 28!@‘ 38+-,‘27-%%3‘ " . .%6,2+‘ "8+3,‘D‘ "31-+‘%76-+%"+‘ "8+3,



B?C ‘ =‘ ?=#;?! ‘ = ‘ #B ‘ # == =# ‘ *=B 9 ‘ ‘ ?=#;?! ‘ = ‘ #B ‘ # == =# ‘ *=B 9

‘ !?= ‘ ?! ‘ !> ‘ K ‘ ‘ =# ?! ‘ ! ‘ ‘ =# ?! ‘ 88

?C 8>‘K8 ‘ #?‘ KK? =# ‘ = @# #B ‘ # #B ‘ !?‘9‘

= ‘ #B; ‘ & # # ‘ ?! ‘ / ‘8 < =# E?C8 ‘ D ‘ A; @ L

#B ‘ ‘ ==C #>‘ E #B?C# ‘ O E‘ #B ‘ !# ‘ B AB‘ ?< < ! ?= ‘ ‘

‘ E!C; ‘ & ‘8 ‘ ?! ‘ (C#B :8 = ‘ & :8 ‘ ?! ‘ ! 88 ‘ ‘

& :8 ‘ ?! O?#B =4 & :8 ‘ ?! O = ‘ !@?C=# ?! ‘ (# :4 &4 ?! ‘

O?‘ ‘ ‘ ‘ ? ‘ O ‘ ?! ‘ :? ‘ O ‘ ?! ‘) : =# (‘ %B2L

/ #; @"‘ ?< 4 * ‘ . ‘ ?! ‘ O < =A#?= ‘ ?< ! ‘ ‘

‘ ‘ ‘ ‘

D # =# ' = ' K?! ! ?; ' #B ; ?!' < >' D ' ?; = '#?' K >' #B ' < '#?' #B ' A !#; # ' = '#?== ' ?C=! 8' ?!' ?=#;?! ' > ;8>' = ' #B #' !?;' #B ' = ' !?; ' = ' #?' C#B?; W ' #B ' ' A !#; # ' = ' #?== ' ?==! 8' #?' @ 8' #B ;' @?= ' = !# ;' ' #B ' ' K # # ?= ' !C88>' D ; 4' EB @B' K # # ?= ' D? ' E; #L # =' D =A' CK?=' #B ' >' = ' # ' ?!' #B ;' K; =# ' ; ' =' K; =@ ' ?!' #B ;' # ' B AB' ?<< !9' ?= ;' = ' #B; ' & # # ' ?!' / ;8 < =#' = '#B >' B =A' B ; ' = '@?= ; ' #B ' < '%B ;' L # ' B AB' ?<< ! ?= ;' = '#B; '& # # '?!' / ;L 8 < =#' !?; ' ') ; =# ' Q' B ; D>' A; =# ' #B ' >; '?!' #B ' ' K # # ?= 4' Q' B ' @ ;= ' = 'B ; D>' @ < ' @@?; =A'#?' #B '# =?;' #B ; ?!

%' =' ! ?; ' ?!' #B ' C;AB' ?!' *= < ! ' = =#' #B ;' < A

' & %' #B ' K # # ?= ' A =' =' = ' K; =# '#?' #B ;' !# ' B AB' ?<< !# ?= ;' = ' #B ' #B; ' & # # '?!' / ;8 < =#' D '#B ' A #; # ' = '#?C= ' ?C=! '?!'*= < ! ' (B E =A' %B #' EB ; ' ; 86' A < =# '?!'#B ;' # '!?;@ 'D?#B'B?; ' = ' !??#' = ' ; A??= 'B '8> =' =' @?=!# =#' A ;; ?= ' #' #B '#?C= '?!'*= < ! ' =@ '#B ' >'?! >' *I ' @' AB#>' =>= ' > ; 4' = ' #B ' L A !#; # ' = ' ?#B ;' *=B D # =# ' ?!' #B ' ' DC;AB4' B =A' D =' #' A; #' = ' ?=# =C 8' @B ;A ' '

' ?<< ## ' =' #B '!?; '; K?;#' D =A' D>' #B ;' !# 'B AB' ?<< ! ?= ;' = '#B '! '&!# # '?!' / ;8 < =#' @?= ; '%B >'! = '#B ' >; '?!' #B ' K # # ?= ' ; ?= D8 ' = '%B ; !?; 'B ' !# ' ?<< ! ?= ;' = ' #B ' & # # ' ?!' / ;8 < =#' ?' @?<< = '#B 'K # # ?= ; '#?'#B '0?; ' ?<< !9' ?= ; ' ?!' #B ;' !# '%B ! C;>' !?;' ; @ =A' Q'# " =A' =' #B ' @@?<K#' !?; ' < =# ?= # 4' #?' #B ' !! @#' D !?; '; K; =#

%' =' ! ?C; ' ?!' J?B=' < 8#?= '?!' 8@; A

& %' #B ' K # # ?= ' A =' =' = 'K; =# 'D ' U ! J?B=' < 8#?= ' ?!' 8@; A' ?= ' ?!' #B ' = #?; ' ?!' #B ' ?88 A '?!' JC!# @ ' #?' #B ;' !# ' B AB' ?<< ! ?= ;' = ' #B ' B?=?; D8 ' #B ' &!# # ' ?!' / ;8 < =#' (B E =A' %B #' EB ; ' #B ' K # # ?= ;' ' =' #B ' > ; ' *I @P' F# ' =' > ; ' KC;L @B ' #B ' !?; ! C8#C; ' ?!' #B ' @ !#' 2 88 <' /?;# ;! 8 '?!' 3C ;; 8#?C= ' = ' 8 F = ;' /?;# ;9' ! ' 'B 'D;?#B ;4' = ' #B #' ?=8>' !?;4#B 'C ' = 'B 9' B??! '?!' #B ' * '!?;! C8#' K ; ?= ' #B ;' E ' = ' @B 8 ; =' = ' #' #B ' !>; '?!' #B ;' = ; !#' ; 8 # ?= 4 4#B?' E #B?C#' E ;; =#' ?;' ?<< ! ?=' =' E; ##' D>' ; !K= '?!' #B ' FCD ; =@>' ?!' #B '#;C!#4' 88' EB @B' #B ' K # # ?= ;' E ' D8 '#?' < " ' KK ; 4' =?#' ?=8>' D>' B ' C!! ; =A'#B ' '!?;! C8# 'K ;!?= '#B ;' E ' = '

@B 8 ; =' #?' K?! ! ' = ' = ?>' #B ;' * 'EB?8 ' !# # ' ;' B 4' DC#' 8!? ' D>' ; 88' ?#B ;' ; ' = ' #' ?@C< =# 4' = ' =A' #B ; ' E ' !# 88' ; !#L =A' #?' #B 'K # # ?= ;#B '!?C< '?!' %B; '#B?C = ' < ;" '?!' K; =@ K 88' K > '!?;' #B ' ?<K?! # ?= '!?;' #B ' .' !# # ' %B ; !?; ' ; =A' #B #' #B ;' L !# ' B AB' ?<< ! ?= ;' = ' &!# # ' ?!' / ;8 L < =#' ,/ '; < ##' #B ' ,+' K # # ?= ; ' ' #?' #B ' ?<< ! ?=' ?!' / ;8 < =#' !?;!>= ' = '!?; ! C8L #C; '#B #' #B >' < AB#' # " ' ?A= # ?= '#B ; ?!' #B #' ?' #B ' K # # ?= ;' < AB#' A #' K >< =#' ?!' EB #' B ' DC;! ' !?;' #B ' ' !?; ! C8# 'K ; ?= ' ?' 9' =# A ?C!# ;' = '#B '! ' !# # ' < AB#' D 'DC; = ' #B ;E #B' ?;' ?#B ;E ! ' #?' @?= ;' #B ' K?! # ?= ' D !?; ' #B ' ?< #>4' = ' # ;< ! ' @@?; =A' #?' JC!# @ 4' 2 B @B' K # # ?= ' E #B' # ' @8 ; # ?= ' ?!' #B 'O >' 3C ;; 8#?C= ' Q'O ; '?!' ; A = '# " =' D !?; '#B 'O ; ' ?!') ; =A 'Q' I' ?D ;#' 8 8 = ' D>' E ;; = ' ?!' #B ' ?< ## ' ?!' !!>= ' Q'!?; ! C8L #C; 'D =A'; ' 'B ; ' =' K; =@ ' ?!' #B ;' L !# 'B AB' ?<< ! ?= ;' Q'&!# # '?!' / ;8 < =#' Q' B =A' # " =' #B ' K?! # ?= ' ?!' ; A = ' #B #' B ' @8 ; # D= ' '?!' ; #>' %B >' ?; = ' #B ' 9' C@# ?= '?!' #B '!?; ! C8#C; '?!' 3C ;; 8#?C= '#?' D ' DC; = 'E #B' #B '!?C< '?!' #B; '#B?C = ' < ;" '?!' K; =7' = ' ; =# ' #B ; ?!' ; !# =A' =' ; K @#' #' ; ! '#B #' #B ' @NC ! # ?= ' ?!' #B '8 ' !?; ! C 9' #=; 'E ' < ' #' #B ' ;K' ?!' #B '!?; ! C8# 'K ;L ?= ' = ; !#' ; 8 # ?= 'Q' KK8> '#?' #B ;' C! ' ? ;' = ' D? '#B ' ?<K?! # ?= 'K > 4' #B '! < ' ?C< ' D =A' !# 88' ; !# =A' #?' #B 'K # # ?= ;

%' =' ! ?C; ' ?!' ⅈ J?B=' ?=;?' ?!' $>; ' Q' (<?=' ⅈ&?=W ' ?!' % ; =' = =#' #B ;' < A 4

< ' & %' #B ' K # # ?= ' A =' =' = 'K; =# 'D ' J?B=' ?=;?' ?!' $>; ' = ' ⅈ (<?=' H' =W ' ?!' % ; =' #?' #B ;' !# 'B AB' ?<< ! ?= ;' = ' 4 #B ' #B; ' &!# # ' ?!' / ;& < =#' (B E =A'%B #' EB ; ' =' #B ' <?= #B' ?!' ? <D ;' 8 !#' K #' = ' !?< ' <?= #B 'K; @ =A' #B ' < ' #B 'K # # ?= ; ' B '#B ;'8 = ' ?!' ?;; ?= 8 ' = ' @B= B 8 AB' Q'?#B ; 'K 88 A ';?DD ' = 'E !# 'D>' 'K ;# ' ?!' #B ' & D 88 ' =' ;= ' =' @?=# <K#' ?!' #B 'K; =#' A? ;=< =#' #?' #B 'A; #'8?! ' = 'K; C @ ' ?!' #B ' ' K # # ?= ; ' EB?' <C!#' = # D8 ' D ' ;C = ' C=8 ! '#B ;' !# ' ?<< !# ?= ;' = '#B '&!# # ' ?!' / ;8 < =#' *B?C8 ' # " ' #B ' < '#?' #B ;'4@?=9' ! ; # ?= ' = ' KK8>' '; < >' #B ; #?' %B ; !?; ' ; =A'#B #' #' < AB#' K8 '#B ;' !# ' ?<L < ! ?= ;' = '#B '&!# # ' ?!' / ;8 < =#4#?' < ##' #?' #B ' ?<< ! ?= ; ' ?!' CKK8>' E #B =' #B ' B>; ' ?!' ?! 'E #B =' EB @B' #B ' ! '8 = ' 8> ' ?;' #B ;' 43C?;C<'#?'# " '#;> 88' ?!'#B 'K # # ?= ; ' <= A 4' = ' ; @ ' 88' < == ;' ?!' 8 A 88' K;?D # ?= ' !?;' 8 NC # =A' #B ' < =' = ' #?' ; K?;#'#?'#B '= F#' ! ?= '?!'#B ' ?;' =>'?#B ;' =!C =A' / ;8 < =# 2 B @B'K # # ?= 'D =A'B ; 'D ' ' !# 'B AB' ?<< ! ?= ;' = '#B '&!# # ' ?!' / ;8 < =#' %B >') ; =#' ?<< ! ?= ' #?' =>' NC?;C<' ?!' #B ' ?<L < ! ?= ; ' ?!' #B ' CKK8>' !?;' #B ' D? ' E; ## =' B>; '!?;'@?A=?!@ =A' = '8 NC # =A'#B '! 'K # L # ?= ; ' <= A '!C!8 = ' =' < == ;' D? '< =9' # ?= # ' = ' #?' ! C ' !?;#B'E ;; = '!?;'@ # =A' 88' K ;# ' @?=@ ;= ' = ' E #= ! @ ' = @ ! ;' !?;' ; 9' % ,$/' #B ; ?!' #?' @?<K ; ' D !?; ' #B <' !?;'#B #' !! @#4 = '#?' ; K?;#'#?'#B '= F#' (! ?=' ?!'#B '?;' =>'?#B ;' =!C =A' / ;8 < =#

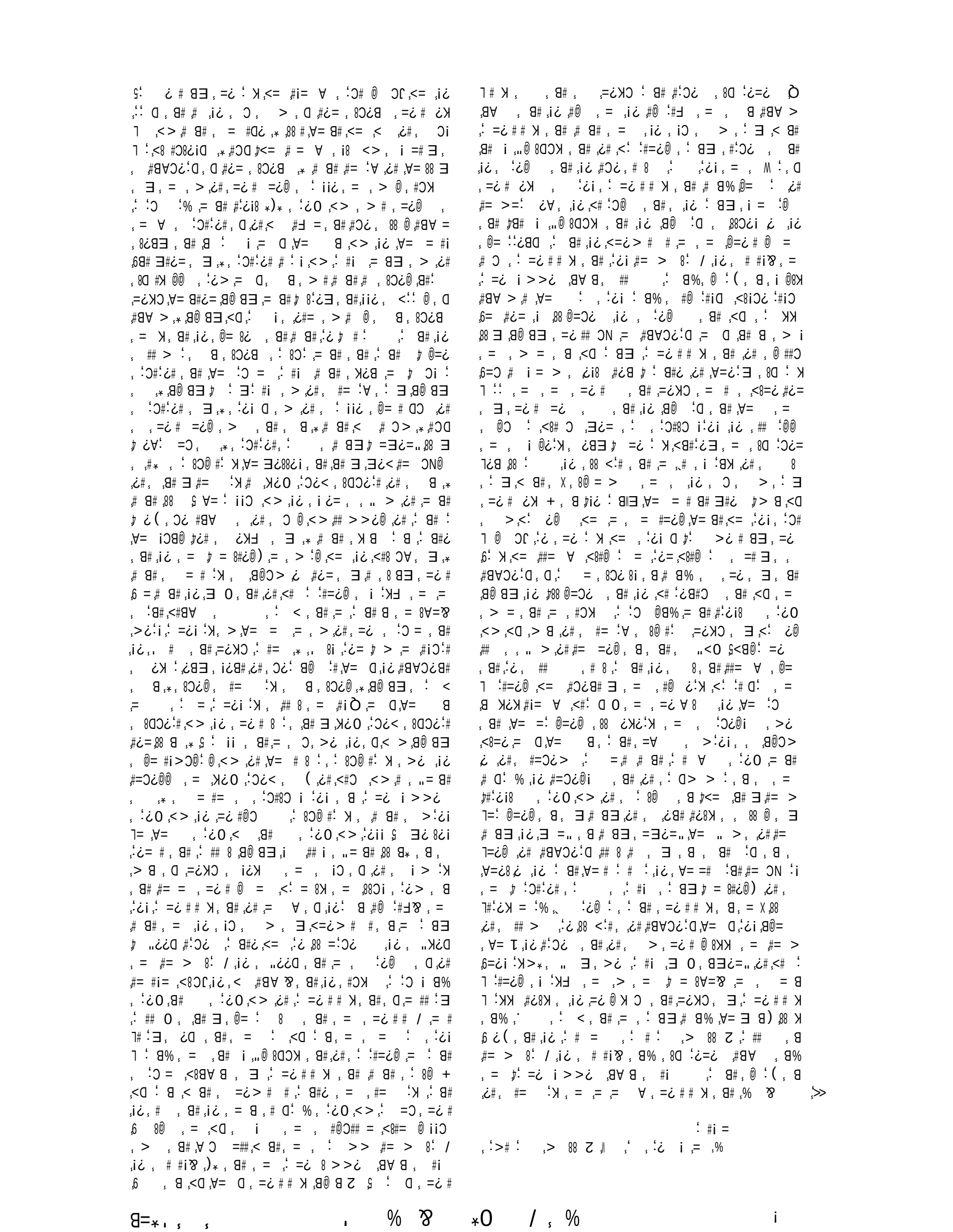
%' =' ! ?C; ' ?!'#B ' 0 ; '?!' %=#? B' = =#'B ' < A

US' & %' #B ' K # # ?= ' A =' =' = 'K; =# 'D ' 0 @B8 =' B8ⅈ =#?9 B' ?!' %?;@ !#8 ' Q' B ' # == =#' #?' #B ;' !# 'B AB' ?<< ! ?= ;' = '#B 'B?=?C;L D8 ' &!# # ' ?!' / 8 < =#' (B E =A' %B #' EB ; ' ? 8' B8 @ ?= 8 ' E #B' B ' ! ?@ # ' =?#' ?=8>' 88 9' A 88 'K?! ! '#B 'K # # ?= ; ' *=# ; #' =' #B ' ; ' ?!' 0?@B D ;4 D?#' 8!?' E #B' #B ' @?=@C; ' ?!' #B ' ?#B ;' D@88 ' =' ;< 4 D @ C ' ?!' #B ' ! 'K # L # ?= ; ' =?#' ?>= =A' #B ' 8 # ' 0?; ' +C= 'CK?=' B '@?< =A'#?'#B '@?C=#; >4 ' <? # D C;D ;?C 8>' =' @?B# <K#' ?!' #B 'K; =#' A? ;=< =#4 DC;= 'B ' B?C! ' ?!' +C== @B#?C=@4 B 88' !C;= #C 7 ' ;' ?!! @ ' B?C! 'D 8?=A =A'-`ⅈ?' = ' 'B ;; ' = ' ;?DD' B ' B 88' 8 = ' =' @=?@B4 (#; #B= ;= ' Q' (#; #B9' < 4 #B ; D>' FK? @ =A' #B ' K # # ?= ;' #?' ' !#' 'D' 1%,' 3-77-73,' 3"' / -##-+%-' 91-+-/0' 1%,' ,2%5, B 88' 8 = ' ; ' 8 > ' E !#' = ' E 88' ?' @?=# = ' C=# 88' #B 'K # # ?= ;' D ' =' '@?= # ?='#?'; K8 = ! ' #B <'%B ; !?; ' ; =A' #' < AB#' K8 '#B ;' L !# 'B AB' ?<< ! ?= ;' = '#B 'B?=?C; D8 '&!L # # '?!' / ;8 < =#' #?' #B ' B ; !!' ?!' #B ' B ; ' ?!' *= < ! ' E #B =' EB B' #B ' K # # ?= ; ' '8 = '8> '?;' #?' #B ' ?<#? 8 ? ; ' CKK8>' E #B =' #B ' B ; ' ?;' #B ;' 3C?;C<' #?' # " ' #;> 88' ?!' #B '8?! ' C # = 'D>'#B 'K # # ?= ; 4' =' #B '8 = ' D? < =7' = '#?' # " ' 88' < == ;' ?!' 8 A 88' K;?D # < '!?;'8 NC # =A' #B ' < 4' #?' D ' ; K?;# '#?'#B '= F#'! ! ?= '?!'#B #';' =>' =!C =A' / ;8 < =#' 'B 'D =' 8 # 8>'A; =# ' ='#B '8 " ' @ ! 4' 2 B B' / # # ?= 'D =A'B ; ' = '@?=! ; ' D>' #B ;' !# ' ?<< ! ?= ;' = ' &!# # ' ?!' / ;8 < =#4 #B >'A; =# ' = 'B ; D>'A; =# ' ?<9' < ! ?=' #?' #B ' B !! ' ?!' #B ' B>; ' ?!' *= < ' EB ; '#B 'K # # ?= ; '8 = '8> ' ?;' #?' #B ' ?<< !L ?= ; ' ?!' CKK8>' ?!' #B #' B ; ' ?;' #B ;' NC?;C<' !?;' @?A=?!@ =A' = '8 NC # =A' #B 'K # # ?= ; ' < A ' C!# = ' =' < == ;' D? ' < =# ?= ' = '#?' ! C 'C#'E ;; =#'!?;'@ # =A' ?!' 88'K ; ?= ' @?=@ ;= ' = 'E #= ! ' = @ ! ; ' !?;' ; !> =A' #B ; ?!4 #?' ?<K ;' D !?; ' #B <' !?;' #B #' !! @#' = '#?' ; K?;#'#?'#B '= F#' ! ! ?= '?!'#B ' ?;' =>' ?#B ;' =! =A' / ;8 < =#

%' =' ! ?C; ' ?!'#B ' 0 ; '?!' %=#? B' = =#'B ' !

& %' #B 'K # # ?= 'A =' =' = 'K; =# 'D ' U.' 0 C@B8 =' - 7=#? B' ?!' %?;@ !#8 '#?'#B ;' !# ' B AB' ?<< ! ?= ;' = '&!# # ' ?!' / ;8 < =#' (B E =A'%B #' 8D #'#B 'K # # ?= ;' = 'B 'K; 9' @ ! ?; ' !?;' < =>' A = ; # ?= ' # = ' =! !#' C= ;' #B 'A; #' ! 88' =' #B ' 8 = ' ?!' 1 KK?@B4) 8 =;?>' = ') 8 = K =' =' #B ' ; ' ?!' 0?@B D ;' = ' ?DL # = ' ; 88' @; #'?!'; <? =A' = '< 88 ' = ' C# ' A =!#'#B '*=B D # =#' = 'K?! ! ?; '#B ; L ?!' = ' ='K;? @C# ?=' ?!'#B ' < 'D =A' !?;@ 4' #B ' 'K # # ?= ;' CK?=' KK8 @ # ?=' < ' #?'#B ' 0?; ' ?!' B '* * !#>'K; >' ?C=@ 884' = 'CK?=' =?#'@?<K ; =@ '#B >'E ; ' @8 ; '!CA # ' = ' =?#' ?=8>' 0 ## ; ' ?!' *=# ;@?<<C= =A' DC#' 8!?' ' ?<< ! ?=' ?!' ! ; ' = '!E?; ' ?D# = ' A =!#' #B <'*=' F @C# =A' ?!' EB @B' ?<< ! ?= '#B 'K # L # ?= ;' B ' ! ; !!' ?!' B ' " =!< =' = ' !?88?E ; ' " 88 4' =?#E #B!# = =A' EB ; ?!' = '#B #'#B 'K # L # ?= ;' 8> ' ?C#' ?!' #B ' ; =#' ?!' #B ' ' 0 = ' #B ' ; 88' > ; ' ?88'J %+?= 8 'E #B'#B '; !#' ?!' #B 'K # # ?= ; ' # == =#' =' #B ' ' 8 = 4' E #B' #B ;' ! ?@ # 4' =?#' D =A' # ! 'E #B' EB #' #B >' 88 A 88>' 8; >' K?! ! ' ?!' DC' K # # ?= ; ' *=# ; !#4' DC#' =' !C;#B ;' K;?! @C# ?= ' ?!' #B ;' C= C!#' = 'C=9' E % =# D8 ' A= ' 'CK?=' #B ' > ?!' 8 !#' D>'K !#' = 'CK?=' ?= ' ?;' ?#B ;' ?! #B ' > ' ?!' #B ' ' ; ?= #B' <?!#' D ;D ;?C!8>' = ' =BC< = 8>' =' ?E=; AB#' ?KK?! # ?=' = '@?=# <K#' ?!' #B 'K; =#' A? ;=< =#' = '8 E ' ?!' #B ' " =A9

1-4" . . -7@
3%" 7'%7'
62Q"8+,'"6'
2 . -,' "+@
5"7-' "6'
P +26#1!29'
0"87#-+



EB @B #B 0?; 8!?;# !# ;' A? =A #E @ ?;' #B; @ !;?<' < '#?' "=?E' #B < = ?!' #B ?C=@ 88' #8 #> 8 '#?5 = EB =' *' ?D @# #B @ ?!' J < #@B 88' EB # A < A;?C= #?' ! ; #B # @?= # ?= E?C8 =?# D " K# E #B' < 4 B = E ; =' #B E?; 4 #B # #B # E <= K C; = #B # = ?!' #B A? ;=L < =# !?;' EB @B' #B K; =# & ;8 ?!' 0 C ; 8 E !?;@ #?' A ## K ; ?= 4 CK?=' EB @B' ; K8>' *' #B?CAB# <>' 8! @C; 2 B =' # E A= D>' #B? #B =' =' #B A? ;=< =# #?4 D; =A' J ; !9' E?? '#?' '#;> 88' *' E =# !?;' !;?<' (# ;8 =A' = D;?CAB# D !?; ?< ?!' #B ;'=C<D ;' EB?' ;= #9' 8 8# E #B' < '#?' @8 ; D !?; #B JC A ?!' #B ; < = 86' ?C;# =' ! E' E?; EB # *' "= E' ?!' #B !! ;' = #B >' #?8 < ' *' B?C8 D @?=L !;?=# E #B' =?' K; !?= ;' >' ; K8>' =' B?;# E 4 #B # *' E ?;; #B ;' 0?K !8 ?# 8 ; NC>; =>' #B =A' ^ ! < EB @B' *' @?C8 =?# ?4 ?' *' E?C8 !' # E ; K? D8 4 '#B?C = #B ; #B ;' #B =' B E #= ! A =!# =>' #B # B ; K? @?=L ! =@ =' < = #B # #?' >' =>' #B =A' D !?; #B ; < = 86' ?=;# E #?' < " <>' 8! !?;9' < 88' =@ EB @B' *' @?C8 = ;' #B ; " ?!' E #B' # ! @# ?= 2 B =' *' B ; #B # <>' K? # ?= E ; ; # #B ' #;> 88' ?!' #B # B?=?C;) =#8 L < =' J ; !E?? '*' KK8>' <>' 8! '#?' <>' 0?; % ;D # @?<K8 = =A' ?!' 4#D = C; 4 EB?' #?8 < #B # D 2 =A;>' # EB # E ?= * @?C8 D 4 DC#' #B # <>' K?! # ?= E ; =?# ?!! ; D>' #B #B =' 0?; ?@ # K;??! 4 =?;' C # = C@B5' Y?;' #E?' !# ;' *' E # CK?=' <>' 0?; / ;#B' #B =' 0?; B =@ 88?;' E #B' EB?<' # #B # #>< E ; #B +C" ?!' 3C = D ;;>4 >' 0?; % ;D #' = #B #B =K; =#?!'#B ! < 4 (;' + !! 8@?= ;5 D !?; =>'#B =A' E K?" '?!' K ;# @C8 ; >' 0?; B = !!?;' K; = ! < 4 =' # 88 =A' < #B # *' E !! < =4' = < AB# A? EB #B ;'*' K8 7' !?;' @@?; =A' #?' <>' @?= # ?= '*' E '#?' D 'K; !?= ;' C; =A' #B =A 'K8 C; = B ?=8>' ?D#<; 8 D ;#>' KK?=' <>' E?; '!?;' >' <' #E?' #B # *' < AB# ! = D 8 '#?' = E ;' EB =' @ 88 5' %B =' >' 0?; B =@ 88?;' ; '#?' ! #B '@?= # ?= '#B # B D =' A; =# '#?' < 4 EB @B' EB =' B 'B ; B ' @"=?E8 A '#B # #B ; B 'D =' 'D; @B' ?!' #B <' = 'CK?=' < ;' < !# >; 'K;?< '#B # =?' C@B' #B =A' B?C8 'D ' 4 !?;' !# ;E ; 4 = '> # *' B 'D =' =!?;< '#B # <>' K? # ?= 'E ; ; =' #B '/ <8 < =#*I AB#>'! =' #B '@ '?!' ?< '#B # E ; '#B =' !?;9' ! C8# 4 K ;# @C8 ;8 #B # ?!' <>' 0?; ?<< !9' 8?= ;4 = = C!# @ EB @B' *' @ ==?# DC# @?<K8 = ?!' *' B '?=8>' #E?' #B =A '<?; '#?' @NC =# >?C;' 0?K' E #B4 ?= ' #B # <?=A!# #B ' @?= # ?= A; =# #?' < D>' 0?; 8!?;# =' #B = < ?!' #B ?C=@ 8-4 #B ; ' ?= 'EB @B' *' = #B ;' >; =?;' #??"' *' =>' =# A '?!4 EB @B' E 4 #B # C; =A' <>' *<K; !?=< =#4 #B 1 =A' B?C8 !; >' <>' FK =@ 4 = >' ?' ! ;' E *' !;?<' @L @ K# =A' ?!' #B @?= # ?= #B # EB =' #' E K;?9

K?! #?' < EB =' # 8 D ;#>' D>' ?< =' #B A?L ;=< =# #B # #B >' E?C8 E; # #?' #B 1 =A' #?' @?= ;' <>' #;?CD8 = 8?! 4 *' K? # 8>' =9' !E ; #B # *' E?C8 =?# B ! ;#B =A4 DC# E ; ?8 #?' ; # ; 4 EB @B' *' CK?=' #B ! ; # ?KK?;9' #C= # 4 D =A' ; ?8 = ;' #?' ; #C;= # 88' *' E' #B =A A? =' =' =?#B ;' @B == 864 *' =?#4 <>' ! ; # 8 = =A' =' ; ## = B =A' D =' E #B' 1 =A' 2 88 < =?#B ;' #B =A' *' E?C8 K; C< #?' @L NC =# >?C;' 0?K' E #B' EB # @?=@ ;= #B K; =#L =A' ?!' <>' K?! # ?= 4 E = !"# D>' ?< EB?' E ; #B =' =' #B A? ;=< =# !' *' 8??"' CK?=' #B K; =# =A' ?!' <>' K? # ?= ' ' D; @B' ?!' @?= # ?= A; =# '#?' < 5' *' = E ; #B # *' @?F8 =?# >' ' ? =A' ?' E ' D; @B' ?!' ! #B' #?' < 4 DC# #B # # E?C8 B ' = = C; ?= '#?' < 4 EB 8 = #B ;' #B *=# ;;?A #?; #B # E ; KC## #?' EB @B' *' E #?' = E ; CK?=' ? #B4 =?;' #B C # F# =C # ?= #B # *' E #B?C# ; ; ? ! ;' <>' < <?;>' ! ; < 4 A ' #?' K ; ?= = #B =A E ; ! ## ?C= 5 = =' #B >' 0?; 8L !?;# @ ;;>' ;>' C=" = 8>' #?' < 4 EB @B' D L @ C ?!' #B ?; ;' *' E #B =' =' K ;#8>4#B;?E' K = = K ;#8>' ?#B ;E *' =?# # " =?# @ ?!4 = #' @?C8 =?# !# ;E ; D < = 4 DC# !' #B B D =' ?= 4 EB # *' #?' <>' 0?; 8!?;# B =?' <?; =' #B 8 AB# #B =' EB # *' #?' <>' 0?; % ;D # 4 EB?' < #B C!8 @ #?' ! ## ?C= =?# ?=8>' <>' ; @# = E ; 5

%' =' ! ?C; ?!' #B %?C= ?!') ! A?E' = =#B 8 '?!' ?< K ;# ?!'#B ;' ?<<?=') ??

& %' #B K # # ?=' A =' =' Q K; =# '#?' B <5') ; @ %B ;' # B AB' ?<= ! ?= ;' Q #B #B; &!# # ?!' / ;8 < =# #B A #; # Q ?C=@ 88' ?!') 8 A?E' !!?;' #B < 8 Q =' = < ?!' #B ?<<C= #>' ?!' #B @ #>' (B E =A' %B # EB ; #B # D# 8 # 8>' @?=#; @# D>' #B !?;L < ;' A #; # Q ?C=@ 88' ?!') 8 A?E' ; =?E' ; 8B=' ! B AB' #B # #B ; =# J ?!' ? F@ #B EB?8 / =C Q ?<<?=' A?? ?!' #B %?== 44' EB ; D>' #B A !#; # ; A; #8>' !@?C; A Q #B >' =?;' #B ;' C @ ! ?; @ ==?# B K ; ?= 88' ! #>' !;?<' #B 8 A =@ '?!' # #?; 4 C=8 ! @?=9' ! ; D8 K ;# ?!' #B ?<<?=') ?? D ?8 !?;' #B !; > =A' ?!' ?< ?!' #B K; ! =A D# %B ; L !?; BC<D8>' ; =A' #B # #B ;' !# B AB' ?<< ! ?= ;' Q -` &!# # ?!' / ;8 < =# E?C8 C#B?; ! #B / # # ?= ; Q #B ;' C@@@! ?; L A !#; # Q ?C=@ 88' ?!') 8 A?E' !?;' #B # < #?' ! 88

.

=>0 = % = Q K ;# = !# D! 8 =A =A #? #B ?< <?= A?? *= K;?K ;#> ?; CK ; ?; #> XQ K ;# L @C8 ;8> #B 0 = ?! / ;? = 8 # 8> @NC ; # C!# Q @?<K # =# K; @ E #B #B FK; ! K;? 9 ! ?= Q @?= # ?= #B # #B A !#; # Q ?C=@ 88 EB?; #B K; @ !B 88 D D?C= Q ?D8 A #?= =!#= @# #B KK8 @ # ?= ‖?! #? #B K >< =# ?!4 D# E D>-) ?? %?C= CK?= ?= D ; =A % =# K; @ =A #B 8 J * K # # @<!C88> D ; 2 B @B / # # ?= D =A B ; Q ?=! ; D> K! !# ?< < !# ?= ; Q &!# # ?! / ;8 7 !?;! %B >) ; =# = ? B ; D>) ; =# #B !>; #B ; ?! = # ! #B ?= =# ?= ?! C;;?E B '! !#= = @ ! #> !?; #B ! # < =# ?= = =#B ! K # # ?=

% &* # ?< < ! ?= ; ?C< / ;8 < =# # 88 #? <?;;?E # # = @8?@" = @?=# =C 88 @ C8 = K;?@ ! # 88 #B # #

%& + * ') 4

, - . 0 2

% #& ?88 ?! / ;8 < =# @ 88

< ##?#B % &1*) Q 3 '&& (J J&(%*&(= ?= ! ?; = ! ; ?! 8D ;#?= C=#? B) ; @ B !# B AB ?< < ! ?= ; = #B B?=?; D8 &!# # ?! / ;8 < =# (B E =A %B # EB ; #B @ !# (; ;@BD 8 J?B=!#?C= ?! 2 ;; #? ' = B =A = E? ! ## 'K?= D 88 KC;@B ! D> B) C ! ; B D =A > # < =?; = =?# < ## ; ?! B E; ## 4 ? #B # B @ ==?# A @@?C=# ?! #B #; = < ! ?= 4 = 8 !# D> #B K @ 86 C 9 # ? ?! #B ! (; ;@BD 8 B !?; ! C8#C; B D K; C A 4 8 BC<D8> D @B B); @ #B ; !# B AB ?< < ! ?= ; #? 8 > K < = #? #B = F# ;C=# ?! / ;8 < =# #B # B < > ! E #B B !; = = 0 E> ; B ; AB# #? #B !?; E? ! ## = #? K;? C@ #B < = 4 = #? D B ; #B ; CK?=4 ?; 8! @8 ; #B C@# ?= = ; # #C# ?= #? D E #B?C# K; L C @ ?! #B AB# #+273-5 #? 31- : -3%3%"7-+, :+-@

@ ! ?; #B ; ?! 2 B @B K # # ?= D =A B ; = @?= ; D> #B ; !# B AB ?< < ! ?= ; = #B &!# # ?! / ;8 < =# %B > ; = ? B ; D> ! ; #? #B K # # ?= ; 88 #B JC!# = 8 E D# C #? #B K # # ?= ; = B A; = L ! #B ; D #B @ !# (; ;@BD 8 J?B=!#?C= ?! 2 ;! !#?C=

%= ! ?C; ?! #B @?C=# ?! % ;D # == F =A #B ;?=> ?! % ;D # #? #B B ; ?! ;?< ;#>

' (& *) & 0 + Q 0 + %B <> 1 =A = 3C = !# 4 ?= ; =A #B # D> @# ?! / ;8 < =# = ==? P = AB#> ! #B ;?=> ?! % ;D # = ; 88 ?#B ; 0 = = ?! B ; E ; ! ?8 !;?< # = == F #? #B B ; ?! ;?< ;# 4 DC# = #B > ; #B @# ?! == F # ?= E ; @ = ?= K; # =@ #B # # =@8C 8 = =?# D 8?=A =A #? #B !# @?C=# ?! % ;D #4 = EB? ! ?C; #B == F # ?= #? ;?< ;# E < 5 = =?E #B ! @?C=# ; =A #B # ?=8> #B ;?=> ?! % ;L D # = ?#B ; 8 = = ?! B ; EB @B D 8?=A #? B < = K;?K ;#> = ; K; =#8> K?! !# D> B < ?; D> B < ?#B ; Q < ?#B ; = 0 E4 = 8 ! ; =# = D> ?< E? ! ## ; ?! B K;?K ;#> B?C8 D =L = F #? #B B ; ?! ;?< ;# 4 %B ; !# = ! ?C; ?! #B ! ?C=# = B !C@@ ! ?; ? E #B @?= =# ?! #B %B; &!# # =?E @?= = = / ;8 < =# !@ = #B @# K # = == ? 4 = ?! = E == F #B ;?= ?! % ;D # = 88 ?#B ; 8 = = ?! B ; D 8?=A =A = K;?K ;#> #? #B @?C=# = K?! !# < 4 #? #B B ; ?! ;?< ;# = 88 # < @?< =A4 = #? 88 !! @# 4 = #? =>?#B ; 8 = @?=L # = = #B # @# =?# D =A ?! #B D ;?= ?! % ;D #4 = =?# D =A B ?#B ; K;?K ; 8 = = K?! !# = < == ; !?; #B > ; #? ; < = = #B B ; ?! ?! ! ?; < ;8> =?#E #B # = =A ?! #B ?; #B ?#B ; @# K !# = #B > ; 4 DC# K; C @ ?! #B ! ?C=# B ?#B ; JC; @L # ?= = #B 8 = @@?;

%?! + ! ?8C# ?= ?! #B !?; ! C8# 0 = == F #? #B ;?E= = #B A= ?! #B 8 # 1 =A J <

' & *) & 0 + Q 0 + ?=9 U ; =A #B # C; =A #B A= ?! #B 8 # 1 =A J < #B ; E ; ; 86 K ; ?= !?;! # = #B ; # # = 8 = D> #B US @# ?! B ! ;!# / ;8 < =# = #B > ; 4 == F #? #B ;?E= 4 = #B # D> #B 8 <?! AB# # F9 K; 8> K;? > #B # 88 C@B !?;! #C; B?C8 D @?= ; = #B K ;# 8 ! ; ; ! 5 = #B ; !# D =A <? # E 88 =A ?= #B ; K ;# 4 #B # #B ; ; ! B?C8 K;?@ = #B . ",3

' ' '*=B ' ' '=;

!! @#C 88 < == ;4 %B ; !?; ' = ' =' ?; ;' #?' #B '
' ; !8 #C# ?= 4 %B ;' !# 'E #B' @ ' = '
@?=! =# ?!' #B ' '#B; ' & # # ' ' ! ?8 '
Q B ; D>' + ! ?8 ' 88 # # ' = '0 = '!;?<' #B '
;?E= ' = ' K #; <?=>' #B ; ?!4 #B # B ' D ='
!?;! # ' = ' == F ' =' #B ' A= ' ?!' #B ' '
8 # ' 1 =A' J < 4 ==C88 =A' = ' < " =A' ? ' 88
@#' ?!' == F # ?= ' #B ; ?!' E #B' '' ?#B ;' @#' ?!'
== F # ?= 4 = ' 88 @8 C! ' = ' @?= # ?= '#B ; ='
@?=# = 4 =' ?' ! ;' '#B >' ; ' =@?=! !# =# B ;9
E #B' =' =>' ?;#5 = ' #B ;' !# 'E #B' @?=L
! =# !?; 4 ! = ' @ ;= ' = ' @8 ; ' %B # #B '
K; =# @# ?!' ! ?8C# ?= 4 K;?@ =A'?='#B ' 8 <'
?!' AB#4 = '!?;' ? =A' C!# @ ' =' < == ;' #B ; L
='K;? 4 ?#B'!C88>' # ! ' 88 @8 C! '@?= # ?= '
= ' NC 8 ! @ # ?= '@?=# = ' =' =>'!?;< ;' @#' ?!'
== F # ?=' = ' #B # # !B 88 B ' #B ' !?;@ 4 0
#; =A#B' = ' !! @#' ?!' ' A B ; 88 0 E' = ' @#' ?!'
/ ;8 < =#4 = ' B 88 D ' 8!' 8 ' = ' !! @#C 88
#B ;' #?' #B ' ' K ; ?= ' !?;! # ' ?;' #?' =>'
?#B ; 4 EB?'E #B'#B ;' @?=! =# B ' #B ;' 8; >'
?D# '?;' B 88 B ; !# ;' ?D# =' #B ' A !#' ?!' #B '
'!?;! #C; 4 ' !' #B ;'= < ' = ' !# # 'E ; '
B ; 'K ;# @C8 ;8>' FK; !# = ' ' !' #B ' ! ?8C# ?='
B 'D =' < ' E #B' 88 #B ' ; 8D= ' = '!?;< L
8 # 'K; @; D 'D>'#B '8 E' = ' @#'?!' / ;8 < =#
D !?; '#B 'A; =# =A' ?!' #B ' (' A !#' =' #B ' <?!#
F @# < == ;4 EB ; = =# = ' A =!# 88 ! @#'
= ' F@ K# ?= ' EB # ? ;' %B ;' !# ' E #B'
@?=! =# !E 4 B ' B ; D>' K = ' = ' 9
K =! '!?;' ' 88 =A4 ==C88 =A4 = ' < " =A'
? ' ' 0 E\' = '@C #?< ' ?=#; ' #B # @ ='
D '@?= #;C '#?'D '@?=#; ;>'B ; #?

' 27-73 31-' ,2!-' "6 27S+8:3,' 275,

<;' ' ' & *) &' 0 'Q 0 + ' = '
!# # ' ?!' / ;8 < =# ?= ; =A' #B # D>' #B '
V7' @# (7 / ;8 < =# 1 =A' B ;8 ' (@?=' =9
# #C8 ' @# @?=@ ;= =A' #B ' 8 ' ?!' ="; CK# '
8 = '*#' ' # #C# '#B # #B '0?; '?!' ! ?='*B 88
@?<< 8 ?= # 'K ; ?= '#?' 88#B '0 = ' = ' !# # '
?!' ="; CK# ' E #B' @?=! =# ?!' #B ' D #?;' EB ; '
#B ; ' '8 A '' ; ;! ?= '@?<K # =# #?' B <' ?;'
E #B?C# B ' @?=!#=# EB ; ' #B ; ' ' =?' 8 A 867
EB ; D>'#B ' 'C! !C'' @# ' < ' = !! @#C 884
=?' K ; ?= ' D =A' E 88 =A' #?' K?= ' ?#B Z < = '
0 = '= #B ;' E 88 #B 'D ="; CK# ;' @?= =# E #B'
=>' C@B' K ;!?= 4 !!?;' ; < 'EB ; ?!' %B ;' L
!# ' E #B' @?= =# ?!' #B ' ' !# # 4 # #C# 4
= @# Q + @8 ; ' #B # #B ' DC> ; ' ?!' ="; CK# '
!# # ' *B 88 B ' AB# #B ; #?' D>' #B ' @! #
?!' 8 '#?' D 'K;#<?C=@ 'D>' # '0?; ' C A49'
=A' #B '0 = ' ?8 '#?' #B ' DC> ;' !?;' #B ' K;> '
@ ;= 4 = '#B # #B 'DC> ;' 88 88 #B ; CK?=' D '
*= # =' #B ' < 'E >' 'CK?=' ?#B ;' C @ L
?= 4 = '#B # #B ' 8 '< >'K;?@ ' ?' !??= ' '
!8 'D '!?C= '#B # #B ' D #?;' 'D ="; CK# = '
C## ;8>' B!?8 E#Y EB #B ;4 #B '0 A 86 D '|| FK C

?;' =?#' = '#B # !' =?' DC> ;' D '!?C= ' # #B ' ; # '
;< = 'D>' #B '0?; 4 # !# ''D '8 !?< '#?' #B '
! '0?; '#?' '#B '0 = ' = '?#B ;' ; AB# '
<?=A!# #B ' ; #?; ' @@?; =A' #?' #B ;' ! ; 88
; AB# ' = ' 8 A =@ ' = 'D @ C! '#B '! 8 ' < >'
B '?D!#;C@# 'D>' ?= #?; '?!' 0 ! ; =# &!@B # #B '
! '0?; ' ; ' B ; D>' *<K?E ; '#?' # ;< = '
#B 'K; @ ' = ' 8C '?!' #B '! '8 ! ; =# !@B # '
= '#?' ! 88 0 = '!?;' #B 'K;>@ '#B ; ?!' @@?; =A' '
#B ' ' AB# '!8 88 B '!?C= '#?' B 'K; ! ; =@

%' = =# C; ; =A'?!' B 8 ; =4

' ' (& *) &' 0 +' Q 0 + ' #B ' 59
1 =A' = '3C = ' !# ' ?= ; =A' #B '!; L
NC =# C;#B ; ' #B # B ' ?;' < >' D '@?<< ## '
CK?=' ==?@ =# =! =# 4 EB?! ' <?#B ; ' ? ' @?=9
@ 8 '#B ;' D =A' E #B' @B 8 ' = ' ? ' =?# @ 88 !?;'
= @ ! ;' ! !# =@ ' =' #B ' D ;#B' EB ; D>' #B ' = E'
D?;= ' @B 8 ' < >' D ' ! 8>' # !8 ' ?;' D =A' 8 !#
FK? ' =' #B ' @?= # ?=' #' @?< '#?' #B 'E?;8 ' #'
<C!# NC @"8 'K ; 8B '$?;'K; =# =A' EB ; ?!' %B ;'
!# 'E #B' >@ ' = '@?= =# ?!' #B ' &!# # '
?!' / ;8 < =#4 ? ' # #C# ' = @# Q @8 ; ' #B # !'
88>' E?< =' !B 88 ?=@ 8 ' B ;' D =A' E #B' @B 8 '
C; =A'#B 'EB?8 '(K @ ' = ' B 88 =?# @ 88 !?;' = '
< " 'C! '?!' B 8K' = ' ! !# =@ ' =' #B ' D ;#B4 #B '
@B 8 ' D =A' !?C= ' ' ?;' < ! =A' #B ' <?#B ;'
!B 88 D ' B?8 <' = ' ; KC# ' #B ' <C; ; ;' ?!' B ;'
?E=' @B 8 ' = '?; = ' 88 @; < B 88 JC A '#?'
!# = '!C 'K;?@ 4 = '#B '8>D 88 D =A' ; L
< ## '#?' #B '"=?E8 A '?!' < ' =NC !#4 # !B 88 4
D ' C!! @ =# A;?C= '!?;' #B <'#?' ; #C< '#B ;' ;L
@# ! = =A' #B ' 0>D 88 K;? =' = ' #B ' <?#B ;'
AC '# '?!' <C; ;' #B?' #B ; ' D ' =?' KK ; =@ '?!'
E?C= ' ?;' D;C ' CK?=' #B ' D? >' ?!' #B ' B 8 4
= '?; = ' #B ' @# #?' D 'K; =# ' = 'KCD8 !B '
#B '< ;@ # ;?! '?!' #B 'B 'DC;AB '?!' #B ' L
; 86 B>; ' = '#?' D ';! ' =' 88 #B 'K ;?@B' BC;@B '
D '#B ' ;'?!' #B 'K ; !B

' 27-73 31-' "072#-' "6 ": :-+

% &' 1*)' Q 3 ' && (' J&(%*&(' E #B' '
@?=! =# ?!' #B ' #B; ' &!# # ' @?= ' ' =' / ;8 9
< =#4)?= ; @ '#B !' # #B '#>< 4 # < >' D '! ##
#?' B ' ?< '!< ' <?= >' @?>= ' =' ?KK ;' !?;'
#B ' ! ' F@B =A ' = ' CKK?;# ?!' #B 'K??; ' = '
#B # #B ' 8C ' 88?E 4 D>' #B '#E =#>'!? F;# @# ?!'
#B '/ ;8 < =# '#?' D ' ?>= '?C# ?!' #B 'K?C= '4
?!' ?KK ;' ' %E =#>' B 88 =A' @?#' ?C# ?!' #B '
KC= 4 ' ?' 8 ##8 ' #B # # E 88 =?# E ' ' ; K >' #B '
@B ;A 4 E !#' = ' #; 88 ?!' #B ' @? = A ' +? '
#B ; !?; ' 88?E' !C B' ' NC =# #>' ?!' @?KK ;' #?' D '
?>= ' '#B '1 =A ' !# ' B 88 ?; ;' =?# F9
A' %B; ' #B?C!" ' !#?= ' ?!' ?KK ;' =' #B '
K @ '?!' F'> ; 4 EB ; ?!'#E?' K ;# ' ='#E?' K ==>'
K @ ' ' '#B ; ' =' F' K ==>' K @ ' #' !C ' '; #

%' @?=@ ;= =A' / #;?= A

' (& *) &' 0 +' Q' 0 + '%B ' ('
1 =A' = ' 3C = ' !# 4 ?=! ; =A'#B #'= '
K?E ;' ?!' K; =# =A' < = !# ; '#?' @ =#' BC;@B 4
?!' 8 # ' F ;@ ! ' D>' / #;?= 4' B #B' D =' A; #8>'
DC! ' = ' ' =@?= = =#' #?' D ' @?=# =C ' ='#B '
8< ' +? '%B ; !?; 'E #B' #B ' >@ ' = ' @?=9'
! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#4' B ;D>' + !9'
@B ;A 4' ! 4' ==C8 4' = ' < " ' ? 4' #B ' !?;! '
K?E ;'B ; #?!?; ' F ;@ ! 'D>' =>'K #;?= 4' ?!' K; L
=# =A' = !# ; '#?' =>'1 ;" '=?E' @ =#4' ?;'#B #'
8B 88' B ; !# ;' B KK ='#?' " 'E #B ='#B ' " =A9'
?< 'E #B' 88' F ;@ ! '?!'#B ' 'K?E ;' = ' 8!?'
88' ; AB# 4'A !# 4' = ' =! !#< =# 4' @# 4' # #C# ' = '
C!#?< ' *=' C ' ! ;' '#B >'< >'D ' F# = '?;'
C= ;!#?? '#?' !# D8 8B'#B ' ! ' ; AB#' ?!' K; =# 9'
# ?= 4' D?#' K; C @ ' 8E > '?!' C@B' < = # ; ' '
; ' E8>' =# ; ' D>' #B ' !?; ' K; =# # ?= 4'
XEB 8 ' ='C! '#B ;'; AB#'#?'#B ' =! 4'A8 D4' D = L
! @ 4' # K = ' = ' ?#B ;' K;?! # ' ?!' #B ;' ; F '
BC;@B ' ' @@?; ' = ' DC#' K; C @ '#?' #B '
/ #;?= '?!'#B ;' ; AB#'#?' <K8?>'#B ' @ =#' # 9'
K = ' ?=' K ?C ' C! ' E #B ='#B ' ; F ' K ; 8B 4'
F@ K#' EB ; '#B 'K #;?= ' ' K?K 8B' *=' EB @B'@ ! '
B ' '#?' <K8?>'#B ' < ' ?=' K ?C ' C! ' D>'#B ' L
>@ ' = ' KK? =#< =#' ?!'#B ' K; D>#' ; ' = ' ='
@ ! '#B 'K #;?= ' B 88' ! '' =' KK8> =A'#B ' @ =#'
# K = ' !?;'#B ' C! ' !?; 4' #B #' B ' B 88'8?! 'B '
; AB#' ?!' < = !#; # ?= '?!'#B ' @ =#' # K = 4 '!?;'
#B #' = '#B '= F#' @ =@ ' = '#B ' < 'RB '' D '
K? '?='D>'#B 'K; D>#' ; '#?'#B ' C! '!?; '
&F@ K# =A' 8E > '#B ' @ =#' # K = 'E #B ='#B '
D?C= '?!'#B ' >=? '?!' ;A>8 4' = '#?'#B ' !! @#'
#B '@ 88 =A' = ' =# ; =A' = !# ; ' =' 88'#>< '@?< L
=A' < >'D '?; ;8>' = '; AC8 ;8>'K ;!?;< '%B ;'
* !# ' E #B' @?=! =#' ?!' #B ' &!# # ' ?!' / ;8 L
< =#4' +? ' # #C# ' = ' @8 ; '%B #' =' @ ! '?!'#B '
@ =@ '?!' =>'K ;# @C8 ;' BC;@B' = '!?;' CKK8> 9'
=A' #B ' < 'E #B' ' < = !# ;' #B ' ; #?; ' ?!' #B '
! 'K ; B' XD =A'K;?# # =# `' = '#B ' 8 ; ' ; '#?'
= < ' = 'K;?K?! '#B 'K ; ?= '#?'#B 'EB?8 '@?=A; 9'
A # ?= '#?' D ' #B ;' KK;? =' ?;' KK;? =' D>'
#B <4' = ' !' #B >' KK;? 4' #B #' #B ' K9'
K;? ; 'A ' ='#B ;'; ?= '#?'#B ' !! @#'#B ' !! ;'
< >'D ' @?A=?! ' CK?=' D>'#B 'K; D>#' ;>'?!'#B '
D?C= ' #' EB?! ' C A < =#' = ' D>'EB?! ' # ;9'
< = # ?= ' #B ' @ 88 =A' = ' =#;>' ?!' ' K ;# @C8 ;'
* = !# ;' '#?' D ' ?; ; ' = ' @?=@8C ' = ' #' '
B ;D>' = @# '#B #' !' KK8 @ # ?='D '=?#' < 'D '
#B ' 8 ;!8 K' = 'B ; #?; '?!'#B 'K ; !8 '#?'#B 'K; L
D>#' ; '!?;'#B ' 88' = '@B? ! '?!' ' = !# ;'E #B ='
#B ' K @ '?!' F' <?= #B ' !# ;' #B ' @ =@ '%B #'
#B ='#B 'K; D>#' ; ' < >'K;?@ '#?' K;? > '#B '
' K ;?@B4' = ' K8 =#' ' < = !# ;' ='#B ' BC;@B'
=NC <' C; ' ?8C#?5 %#' ' 8E > 'B ; D>' L
@8 ; '#B #'#B ' @#' B 88' D ' D?#' K; C @ '?!'#B '
88 =A'?!' B8 = !# ; '#?' ?> '' C;AB 'D>'#8 '* 8

B 88' D ' KK? =# 'D>' B ' !# 4' =?#' F@ 9'
=A'#B; ## ' B = =A' ! ?! ' =' #B 'KC; 'E AB#' ?!'
' ?KK ;' / ;? > =A'#B #'#B ' 'NC =# #>' ?!'%B; '
#B?E! = ' #?= ' D ' ?' > ' '#B #' =?' <?; '
#B ='!>' 'BC= ; ' #?= 'D '@?>= ' ='?= '> ; H'
= '8 " E > '#B #' 8D #'#B ' 8# ; # ?= 'D '=?E'
K = 'E #B' = ' 88?E '?='A?? '@?= ; # ?= 4'
> #' !# ;'#B #'#B ' '=C<D ;' ?!'#B; '#B?C! = '
!8?= ' ?!' ?KK ;' 8B 88' D '@?>= '#B '!?;< ;' @#'
K !#' =' ==?' = '[AB#>' F'#B 88'!# = ' =
'!C88' !?;@ ' '#?'#B '< ## ;'?!' ?KK ;'@?>= ' ='
88' K? =# ' = '#B ' !# # ' ? 'BC<D8>' *=#; # '
'[!# ' < >' ; @?<< = '#?' B ' ?C=! ''#?'
" ' F @#' @ ; '!?;' ? ; =A'#B #' =?' <?; 'D '
P@?>= ' #'#B ' # '#B ='#B '! '#B; '#B?C = '
!#?= ' =' C@B' K;?K?;# ?= ' 'B ' !# '!# ''
K; !@;>D '=?#' F@ =A'! 'BC= ; #B' #?= ' ='
?= '> ;' ' ' = '#B >' # #C# ' = '?; = '
#B #'#B ' F@ =A'?!'#B '!?; 'NC =# #>'8B 88'D '
KC= 88 ' '! 8! ' ?>= A

%' @B ;A =A'#B ' C8 ' @ =@

S' % &' 1*)' Q' 3 ' && (' J&(%*&(' ?=L
; =A' %B #'#B ' " K =A'?!'#B ' C8 ' @ =@ '
B #B' D =' 'A; #' =# %CK# ?= '#?'#B '@?C;! '?!'
JC!# @ ' ='#B ' " =A ?< '#?'#B 'B = ; =@ ' = '
B 'K; C @ '?!'#B '0@ A@ '#B ; ?!'%B ; !?; '
#B >'E #B' = 'D>'#8 ' @ '?!'#B '& # # '?!'/ ;L
8 < =#'B ' @B ;A ' = ' <K8>' !@B ;A '#B '
!?; ' C8 ' @ =@ ' = ' '' ?D @; # ?= '#B ; ?!'
='#><' @?< =A' = ' !@ = ' = ' ==C88 ' 88'
@#' # #C# 'E ;; = ' = '?; = =@ 'EB # ?< ;'
A; =# ' =>' #><' B ; #?!?; '!?;' " K =A'?!'#B '
' C8 ' @ =@ 'E #B' 88' @C #?<@' ?!' ?D! ; # ?='
#B ; ?!' = '!! = ' = ' @8 ; '#B ' < '#?'D ' ? '
= ' F# =@#' = ' ?!' =?' !?;@ ' =?;' !! @#' =' #><'
@?< =A4' = '?; = '#B ' ?C;#' = '! ! ?= '?!'
#B ' ?88 A '?!'JC!# @ ' = ' = #?; ' = '< <D ; '
#B ; ?!4'#?'@?= =@' = '! ##'!?;'#B ' < = !#; # ?= '
?!'JC!# @ 'E #B?C#' =>' =# ;;CK# ?=@' D>'#B '!?; '
C8 ' @ =@ '!;?<'#B '! 7!# >'?!' ? <D ;'#?'
#B '8 !#' ?!' $ D;C ;>' =@8C!# ' > ;8>' = '?; = '
#B ' ' = #?; ' = ' ; < = =#' < <D ; '?!'#B '
?88 A '?!'JC!# @ '#?' ; !'#B ' '8 !#' >'?!'$ DL
;C ;>' = '#?' @?= = ' = ' ##' ?E= ' A = '!?;'
< = !#; # ?= '?!'JC!# @ '#?'#B '0 A '#B '! ;!#
>'?!'JC= '> ;8>' = '#?'; ! '#B '8 !#' >'?!'JC8>'
= F#' #Bf5; !# ;' =@8C!# ' = ' 8!?' ?; = '#B '
EB?8 '; < = =#' JC A '?!'*=! ; ?C;' ?C;#'E #B ='
#B '1 =A ?< '#?' K;?@ ' =' #B ' < = !#; # ?= '
?!'JC # @ 'E #B ='#B# ;'! ; 88' JC; @# ?= 'E #BL
?C#' =>'; K @#'#?'#B '! ' ' @ =@ ' = 'E #B?C#'
=>'*=# ;;CK# ?=@' ?;' @ # ?= 'D>'#B ' < ' C8 '
@ =@ 4'=?#E #B!# = =A'?!' =>'D>A?= '@C!#?< '?!'
?D! ; # ?= '?!'#B '8 ' C8?' @ =@ ' =A'#B '
< =' '=?E' ! B ;A ' =' < == ;'!?;

%' @?=@ ;= =A' @<# (# K = ' ='#B '
(>=? ' ?!' ;A>8

' ' (& *) &' 0 +' Q' 0 + ' %B ' U
1 =A' = ' 3C = ' !# ' ?C# ?!' #B ;' ?> ''
; ' = 'p 8 '!?;' #B ' !?;< ' 8 A ?= 'E #BL
='#B '" =A ?< '# " =A'H#?' #B ;' ; ?C '@?= 9'
; # ?= '#B 'A; #' < ;@ '?!' 8< AB#>') ? '#?E ; '
#B <4 =' ##8 =A'#B ;' C!#' ; AB#' = 'A? ;=< =#
*='#B ' #B ;' =@ =#' " =A ?< 4' = ' D =A' 9'
>; ?C '#?' <K;? '#B ' < ;@ '#?' #B ') 8? >'?!'
) ? 4' = ' B?=?C;' ?!' B 'A; #' = < ' +?#B'%B ; L
!?; 'E #B' 9 >@' = '@?=! =#' ?!' #B '#B; ' & # # '
?!' / ;8 < =#4' # #C# ' = ' ?; = ' #B #' 4" #B '
@ =#' D = ! @ ' = ' # K = 'D 8?=A =A'#?' #B ' ''
" ;" '8> =A'E #B ='#B 'B?C= ' ?!' #B ' >=? ' ?!'
;A>8 ' #B #' #B ;' =?E' ?;' 8B 88' B ; !# ;' " '
E #B ='#B 'B?C= ' ?!' #B ' ' >=? ' ='88' #>< '
?<‖ =A4' B !#4' D ' KK8> ' !?;' #; = =A' CK' ?!'
>?C#B ' #'(@B??8 ' = ' ? A ' ' '= @ !# ;'< = '
!?;'K8 =# =A' = 'K;?K A # =A' #B 'A? 88' ='#B ! '
K8 @ ' = '!?;' =#;? C@ =A'@ 8 # 4' = ' D; =A =A'
#B #' ?C=#; >'#?' A?? ' ?; ;' = '!?;' ?#B ;' K ?C '
C! '#B #' B 88' ?@@C;' E #B ='#B 'D?C= '?!'#B ' '
>=? 4' #B ; ' D =A' =?E' = ?; ' #B =' ;' ='#B #'
K8 @ 'A; #' = ' ?!' K; @B ; ' = '! ; ;' # #C# '
= '?; = 4' #B #' #B '!?; ' @ =#' # K = 4' #B #'
#B ;'=?E' ?;' B !#' B ; !# ;' " 'E #B ='#B ' '
D?CK 4' B !#' D ' CK8 !# ' !;?<'#B '; F 'B ; #?; '
= '# == =#' 8> B! ' ='K >< =#' ?!'#B ' < = 'B '
= ' ?88 @#?;' ?;' ?88 @#?; 4' #?' D '=?< = # 'D>'#B '
' >=? ' EB?' ; ' B ; D>' <K?E ; ' #?' A '
E <= ' = ' ?<< ! ?=' #?' \=>' EB?<' #B >' B !#
(+'

A !#; # 4' #?C= ' ?C=! 88' = ' " ;" ' ! ! ?= ' ?!' #B '
DC;AB' EB ; ' #B ; ' ' =?' 8 = E ; ' K ; 8B' ' #B >'
B 'D ='' ='C! 'D !?; '#B '> ; ' 4' = 'EB ; '
#B ; ' ' '@?= ; D8 'K ;#' ?!' #B 'K ; 88' ='0 = L
E ; 4' #B #' #B ' @ 88' B 88' D 'D>' #B ' * * A !#; # 4'
%?C= ' ?C=! 884' 1 ;" ' ! ! ?= 4' = ' #B 'B ; #?; '
?!' #B '8 = E ; 'K ;?@B' = ' ='8 E' = ' ; @?<9'
K = ' ?!' #B ' ' ; AB#' ?!' K; =# # ?= ' B ;D>'
# " =' E >'%B ;' # 'E #B' >@ ' = '@?= =#'
!?; '(# #C# ' = '?; = 4' #B ' ; #?; ' = '8 ! 9'
; =# ; '?!' @B' K ;?@B' = '#B '#?C= ' ?C=@ 88 '!?;'
#B 'DC;AB'#?'K >'#?'#B '! 'K #;?= 'D #E F#' = '
;# < '= F#'#B ' ?C< '?!' F' BC= ; #B' < ;" '
K;?K?;# ?= 88>' !8! ; =A'#?'#B ;' 8C ' =# ' ='
#B '! 'K ; !B' .' #E?' K ;# 'D>'#B ' ; #?; ' = '
'#B ; 'K ;#'D>'#B '8 ! ; =#@; 4' C@ =A' 8E > '
#B 'K #;?= ' ?E= 'K ;#' ! ; =A'#?'B 'K;?K?;# ?= '
' = 'B ; #?; ' = '#B #'CK?='#B '! 'K #;?= 'B '
A; =# =A' ' C!! @ =#' = '!?;< 86' ; =C=@ # ?= '?!'
#B ' ' AB#' ?!' K; =# # ?= ' ='! ?C; '?!'#B '
! 'B ; #?; 4' %?C= ' ?C=@ 8' !?;'#B 'DC;AB' = '
1 ;" '! ! ?=N' = ' #' 'B ; D>' @8 ; '%B #' '#?'
#B 'K ; !B '#?' EB @B'#B ;' !# 'B ' ; AB#'#?'
K; =#' CK 'K >< =#' ?!'#B ' ' F' BC= ; #B'
< ;" '#?'#B ' 8 ;" '?!'#B '%B ! C; 4' %B ;' L
!# '!B! 8' D '!C88>' =C '?!'#B ;' ; AB#' K; L
=# # ?= ' '#?'#B #'K ; B' = ' '#?'?#B ;'K #;?= '
!'#B >' ; !##! '#?' @@ K#' #B ' ' F' BC= ; #B'
< ;" '#B ' < ' '#?' D '@?= A= ' ='#B 'B = '
?!' ' ; (K?= 'K ; ?= ' ='#B 'K ; B' CK?='#B '
B W ; '?!'#B '@?= A= ; 4' =?'#?' D 'A ='CK'#?'#B '
K #;?= ' C=# 88' B 'A; =#' #B ' ' =C=@ # ?= 4'
88?E =A' ='#B '< = '#>< '#B 'B ; #?; ' = '" ;" '
! ! ?= '#?'@ 88' #B ' < = !# ;' @?=!?;< ' #?' #B ' @#4'
= ' ?; = ' 0 ## ; ' ?!' B?;= ##A' #?' D ' ; @#' #'
#B ' =!# =@ '?!'#B 'K #;?= ' A =!#'#B 'B ; #?; ' = '
?#B ; 'EB?' !B 88' =?'#=? " 'K >< =#'?!'#B ' ' F'
BC= ; #B' ;" 4' !# ;'#B ' '# ;< '?!' ;# < '
= F#4' = '8 " E > (' #'#B ' =!# =@ ' ?!' #B 'B ; #?; '
= '?#B @ 'E 88 =A'#?'K >' A =!#'#B 'EB?' ; 'C=L
E 88 =A4' = ' ='@ ! ' #B 'K #;?= ' D 'C=E 88 =A'#?'
@@ K#'#B ' '!?=< 4' ^=' #B 'B ; #?; ' = '?#B ; '
!?; 'C=Z 2 88 =A' #?' K >' ; = ' 0 ## ; ' ?!'
B?;= =A'#?'D 'X! ; #' #'#B ' =!# =@ ' ?!' #B ;' L
!# '?8 @ #?;' A =!#' #B ;'?!'#B <4' = '!C ;#B '
#B ;' !# 'E #B' >@ ' = ' ?= =#' !?; 4'
#C# ' = @#' = ' @8 ; 4' #B #'#B ' AB#' ?!' #B '
% = '?!'#B ' 'K ; 8B 'EB @B' # '=?#B ; ! D8>'
K?= 4' B 88' D ' ;#C '?!'#B 'K; =#' @#' D L
8?=A'#?'#B ' 'K #;?= 4' E #B'#B 'DC; ='8E > '
?!'#B ' = # ; ' # K = ' # @" ' = 'K;?;?A # ?= '
B >'A; =# '?!'#B ' '# = ' = '?!' C@B' CAL
< =# # ?= ' ?!' # K = 4' !C#C; 'K;?;?A # ?= ' = '
; @# ?= '?!'= E' " ;" 4' '!B 88' D '!?C= ' C!#' = '
FK =#4' /;? > =A' #B ' 'K #;?= 4' A ## =A'
; AB#'#?'#B '# = 'D ' ;#C '?!'#B 'K; =#' @#4'
= 'EB?' B ' =?' ; AB#' #B ; #?' ?!' D !?; ' B 88' D 4'
0>" '#B >' ; 'B ;D>'?D8 A '#?' ! 88' #?' @B'
B ; #?;'#B '#; = '?!'B '?E= '0 = '#'#B '; #'?!'
,% >#?; 'KC;@B ! 4' '#B ' < ' B 88' D ' 8C

K? # ?= ' ; '8 E!C88>' < 'D>'#B ' !C=@#4 #B?'
= #B ;' =# < # '=?;' < ' KCD8 @"' ='*= '8 ! # < '
#B >' B 88' D '> #' A?? ' = ' B '; AB#' = '# #8 '
#?' K?! ! 'D;C " 4' = ?>4' KC; C '?;' ! = ' 8D #'
#B ' ?C< '?!'<?= >'?;'A?? '#B ; ='@?=# = 'D '
=?#' @?=! ;< ' E #B?C#' K; C @ ' 8E > ' #?' #B '
@?= K # # ?= '?!' ; #?; ' = '?#B ; ' = '?!'#B ;I'
; AB#' = ' 8 A =@ ' '!?;< ;8>'D !?; '#B '< " 9'
=A'B ;?!

= ' KK? =#'#?'@?88 @#'#B ' < 4' = 'EB?'
!8 88'# '@?<K# D8 '#?'#B <'?;' =>'EB?<'#B >' B 88'
KK? =#'#?'; @ '=9#B '! < =';!;?<'#B <'' = '
EB @B' ?E< '?!'<?= >'!C '#?'D 'CK8 !# ' = '; 9'
@ 4' 'B ;D>' KK? =# '#?'D ' KK8> '!?;'#B '
=! '!?; 4' #'#B ' AB#' = 'D>'#B ' ; @#?= '?!'
#B '(' >=? 'E #B' @?= =#'?!'#B 'B ; #?; ' = '
E #B'K?E ;'#?'#B ' '>=? 'E #B' @?=# =#'!?; 4'
#?' ? ' 88' = ' C= ; ' ?#B ;'#B =A ' = !C88' !?;'
8 @ =A'#B 'K; < ! ' !! #C 88'!?;'#B ' = '!?;8 '
= ' #B #' =?#E #B!# = =A' ?!' =>'!?;< ;' @#'?!'
/ ;8 < =#'K; C @ 'B ; #?'?;' = ?=! !# =#'#B ; L
E #B' =' =>'!?;#

%' A =!#'$;?! = = !

' 7 ' (& *) &' & /'Q' 0 + '%B
1 =A' = '3C = ' !# 4' = '#B; '&!# # '?!'
/ ;8 < =#' ?= ; =A'B?E'<C@B' #'@?=@ < '#B '
B?=?C;' = 'A8?;>'?!')? 4' = 'K @ 4'E 8! ; ' = '
K;? K ; #>'?!'#B '1 =A ?< 4'#B #' 88' @ ' = 'K;?9'
! = = !'D 'KC= !8 ' = ' CKK; ! ' = ' ;#C '
= 'A? 8 = !' =@?C; A '+? '%B ; !?; 'E #B' 9'
>@ ' = '@?= =#'?!'#B '#B; '&!# # '?!' / ;8 L
< =#4 4'; = E' = '@?=! ;< ' '' 0 E ' = '
@#'?!' / ;8 < =#'< '?!'D !?; ' A =!#' C; =A'
(E ; =A' ;C=" == ! '!?;= @ # ?= ' = ' =@8 =9'
= ! 4'K;D! = # ?= '?!'#B '0?; ' + >4' = '<?@" =A'
= '; K;? @B =A'?!'; 8 A ?=' = '#B ' F ;@ ! '#B ; L
?!4 = 'K ;# @C8 ;8>' #B ' @#' # '#B '&8 =#B'
?!' (K# <D ;' V.' > ; ' *=# #C8 4' @#' A =!#'
/;?! = = ! 'E #B' #B 'E ?8 ' @#'#B ; ='< =# ?=L
' = '< == ;' ?!' &F @C# ?=' #B ; =' K; @;> 4'
NC>; =A' 0>" '%B ;' !# 'B ; D>' K ;L
<K#?; 8>' NC>; ' '' J * A !#; # 4' ?!! @ ; ' = '
?#B ; '@?=@ ;= '#?'KC##'#B ' ' @#'#?' F @#' = '
KC=@#C 88' F @C# ?= 'E #B' 88' @ ; ' = ' 8 A =@ ' '
#B >' E 88' D ' =!E ; D8

%' = =#'#B ' ?=! ;< # ?=' ?!'% # < =#

' ' ' (& *) &' 0 +'Q' 0 + '%8 '
1 =A' = '3C = ' # 4' = '#B; '&# # '?!'
/ ;8 < =#' ?= ; =A'#B 'A; #' F # ?= '?@@ L
?= '#?'#B ;' J @!# '0 A 4' D>' ?<< ! ; '
= '#B ;' 8 ;" '!8 @ 88' = '?!! @ ; 4' @B ;A =A'
#B <'#?'@?=! ;< '#B '% # < =#'?!'#B ;' @ !#'
8 # ?= '+? 'B ; D>' @B ;A ' = '!?;D ' =' 88'
#>< '@?< =A4' 88' ?<< ! ; ' = '#B ;' !! !@ 88'
8 ;" ' = '?!! @ ; 4'#?' B ;A 'KC; C '?;' ; NC ; '
=>'K ; ?=@'#?'@?=! ;< '#B '% # < =#4'?;'A 'CK'
*= T =# ;>'?!'#B 'A?? '?!' =>'?#B ;' K ; ?= ' L
!C=@#' F@ K#' #'#B ' =!# =@ '?!'#B ' 8 @#'D ;= 4'
= ; !#'?!'1 =' = '#B ;'%C#?; ' = ' C; #?; '?;'?!'
' ; ##E' + @8 ; =A' 88' @B ;A 'KC; C # ' = '
F @C# ?= '?#B ;E ' < ' = 'A ='#?'D ' ? '
= ' C88' = '! ; ;'%B ;' !# 'E #B'@?=! =#
6"+,2%5 ' -4!2+-'3123M91-+-', : -4%2!K'26,%#723%"7,' =

%' @ = =A'#B '0 E '!?;' ?=!?;< #>

' ' (& *) &' 0 + Q' 0 + '%B ' V'
1 =A' = '3C = ' # ' = '#B; '&!# # '?!'
/ ;8 < =#4 ?= ; =A'B?E'= @ ! ; ' #' '!?;'#B '
E 88' = 'K @ '?!'#B ' " =A ?< ' = '?!' B; !#'
BC;@B'E #B ='#B ' < ' '=?E'D>'0 E' !# D8 !B '
%B #'#B ' @#'!?88?E =A'B ' !@ = 4' +? '%B ; L
!?; ' !@ = 4' !' ==C8' = '< " ' ? '#B '
@#' B Z'S'/ ;Z '(!'Z'SH5 K'Z'UZ' ?=@ ;= =A'
;'?!' ' = ; # 4' = # ;'Q@' @#'#B ' [[
*D <' @?=@ ;= =A'#B '+ @8 ; # ?= '#?'B ' A= '
D>' 88' K ; ?= ' ='KCD8 "' %;C #4' @#' B ;'Z'S'
/ ; 5 Z (!'5 .I' K'5S Z A =!#' K ; # ?= ' =
!?B =@ '#?'&@@8 ! !# @"' C#B?; #>' @#' K'Z .H
*D <' # ?= 86' @#' @?=@ ;= =A'#B ' @8 ; L
?= 4' @#' B Z (I7/ ; Z S'(! Z SI7 K5 Z' A =!#'
?= =# @8 4' @#' K'Z Z' D <' A =!#' ?; ;L
8>'B K# < ' @#'@ K5 V' D <4' A =!#' K ; # ?= '
= 'E #B ; E ='A'!;?<'#B 'KCB8 @"' < # =A '?!' L
= 'E?; B K' @#'Z B Z SI7/ ; 5S'(! Z .'5 K'GZ'
A =!#'C=8 E!C88'?; = # ?= ' @#' B Z SI7/ ; Z S
(! 5 (I7 K' VZ' A =!#' " K ; '?!' ?= =# @8 '
= 'E #B ; E ; '!;?<'KCD8 "'E?; B K' @#' B Z S
/ ; Z (I7 K5U5'!!?;' @C; BA'?!'#B 'K @ '?!'#B '
?C=#; >' @#' J Z V[I7/ ;Z 7Z (! Z 7Z KZ Z'
?D8 A ='A'BC!D = '#?' B '8> B8 '!?;'#B ;' E '
!>= ' @#' K5 '*D <' A =!#'K; @B ; '# ?=L
=# @8 4' = 'B ; ; ' # ! 8 ' ?= =# @8 4' @#'
KZSU'*D <' ; = ='A'#B #'# == =# ' D '?D9'
8 A 'D>'#B ;'# @" '#?'8 '; AC8 ;8>4' = 'A = L
; 88>' 88' ?#B ;' @#' @8 C! ' = 'K;? ! ?= ' =' @#'
EB # ?< ;'< ' =@ '#B ' > ; ' '*=@8C! '
A =!#' ?=@?=!?;< #>'?;' !?;' ?=!?;< #>'#?' #B '
BC;@B' = 'A? ;=< =#'#B ; ?!' '#B =' !# D8 !! '
C= ;' ;@BD !8 ?K ' = ' B?K

%' @ = =A' ; 88' @#'?!' / ;8 L
< =#' 'C 8 !'?;'BC;#!C88

' ' (& *) &' 0 +'Q' 0 + '%B ' '
1 =A' = '3C = '* * !# ' = '#B; '& # # '?!'
/ ;8 < =#' ?= ; =A' #B #' C; =A' #B ' 8 # '
> ; 'D>K !#4 ; 88' @#'?!'/ ;8 < =#'B 'D ='
< 'EB @B' ; '=?E' #B ;' C! 8 !' ?;' !?C= '#?'D '
BC;#!C88'+? '%B ; !?; ' !@ = 4' ! 4' ==C8' = '
< " ' ? ' =' 88'#><' @?< =A'#B ' @#'?!'/ ;8 L
< =#'!?88?E =A': ,)' @#' B ;Z SI7/ ; Z 5(! Z 7Z

#B ' B 88' @@C # ?= 4' ; ?= =A4' E;># 4' E #= ! ' = '?#B ;'K;?D # ?='= ' = #;C # ?= 'EB # ? ;'?!' #B 9' ;>< ' B?C8 ' D ' 88 A ' ; ?= ' = ' L C@ '#?'#B ' ! >W ' ='K; =@ '?!'#B 'K ;#>' @@C L ' ='! @ '?!'JC A < =#' = ' ='?'?#B ;E ! 4' = ' %B ; !?; '#B ;' !# 'E #B' >@ ' = '@?= =#' ?!'#B '& # # '?!' / ;8 < =# ' + @8 ; '#B #' 88' =L # =@ 'K;?=?C=@ 'D>'#B 'JC!# @ ' ?C;#' =' D! =@ ' !?;'K ; C 88?=' ?;' =>' ?#B ;' ;>< ' D !?; ' #B ' > ; ' G4' E ; '!;?<' #B ' D == =A' C88' = ' ? ' = 'B ; D>' #?; ' ''K ; ?= '?;'#B ;'; L K; =# # ' ?' !?; ! C8# ' D>' #B ' JC!# @ ' =' <? C<' C!# # 4' = 'K ;# @C8 ;8>' #B ' ; K; =# L # '?!' ⅈ C ; '?!' 8 E 88 ' 1 ; ?!' 1 ;!8 = ' = ' ⅈ 2 88 <' #@B' < = !# ;'?!' #B 'A? K '4' EB @B' B 88' D ' 8! ' 8 ' = ' !! @L #C 86' #?' ''=# =# ' = 'KC;K? ' ' !'#B >' B ' 'K @ 88' @#' ?!' / ;8 < =#' ; C@ =A'#B '!?; 9' ! C8#C; ' = 'B ; D>' @ = '#B ' @#' ?!' / ;8 L < =#' ==?' G' *=' ?'! ;' ' #' # ! '#B '!?; 9' ! C8#C; 4' = ' 88?E '#B '!?; 'K ; ?='#?' KK8>' #?'#B ' ?<< ! ?= ' = < 'D>'#B ' @#' ?!' / ;8 L < =#' !@ = =A' !>= ' = '!?; ! C8#C; '!?;'; K 9' # # ?= '?!'D>A?= 'K; @ =A' ;# < ' 4' @?=9' !?;< '#?'#B #' @#

%' =' ! ?C; ' ?!'#B ' !< 88' ! 88 ' ?!' 1 ;"8 = 'EB?'=?E'B?8 '?!'#B ;' #

' ' (& *) &' 0 +' Q' 0 + '%B ' 1 =A' = '3C = '* !# '# " =A' =#?'#B ;' ?=9' ; # ?= '#B #' < =>' ?!'#B ' ! ' '?!' B?K ' = '?#B ;'" ;"< ='EB?' =?E'B?8 '#B ;'8 = ' <9' < #8>'?!'#B ;' !# 'B ' C@B'!< ''K?;L # ?= '?!'0 = '#B #'#B >' ; '=?# D8 '#?'D ' #'#B ' FK =@ '?!' FK =A'#B ;' =! !#< =# '5 $?;' 9' < 'EB ; ?!'#B ;' !# 'E #B' >@ ' = '@?=L =#'?!'#B '& # # '?!' / ;8 < =#4' ? ' # #C# ' = ' ?; = '#B #'#B ' A= #C; ' = ' B ;# ; '?!' 88' !L 88 '?!' 1 ;"8 = 'EB? ' 8C # ?=' 'DC#' = 'BC=9' ; #B'KC= '(@?# '?;'C= ;'D =A' D? '# ='K?C= ' B 88'D 'K #' = ' FK '#B;?E'#B ' A !# ; ' = ' 88 '!?;'K >< =#'?!'# ='K?C= ' @?# ' 88 == ;8>4' !?;'! ' ='#B '&F@B NC ;4' C ' #' #B ' A= #' = ' 88 4' ; ='"' <?= >' ?;' =>' ?#B ;' C#>' ?;'! 'EB #L ? ;4' = ' #B #' #B ' A= #C; ' = ' B ;# ; ' ?!' C@B' ! 88 'EB? ' 8C # ?= ' 'DC#' #E?'BC= ; #B' K?C= ' @?# ' ?;'C= ;4' D =A' D? ' ?= ' BC= ; #B' K?C= '88 88' D 'K !#' = ' FK '#B;?E'#B ' A !# ; ' = ' 88 '!?;'K >< =#'?!'! !# ='KC= '(@?# ' 88 =L = ;8>'!?;'! ' ='#B ' &F@B NC ;' C ' #' #B ' A= #' = ' 88 ' ; ='' '<?= >' ?;' =>' ?#B ;' C# ' ?;'! ' EB # ? ;' = '#B #'#B >' B 88' D ' !; ' ?!' K > =A' ' (=!!' F' #?' #B ' B ; !! ' = '#B ' C '#?'D ' K > 'D>'#B <'#?'#B ' B@; !! '!?;' &NC ' B 88'=?#' F@ ' #B ' #E =# #B' K ;#' ?!'#B ;' ! E' E# ' = 'EB ; '#B ' ! 88 ' ?!' 1 ;"8 = ' #B ;' 8C L # ?= ' '?=8>'# ='KC= '(@?## ' ?;' C= ;' #B #'#B ;' B ;# ; ' B 88' K ! '#B 'A; #' 88' K ;' 8#C<' E #BL

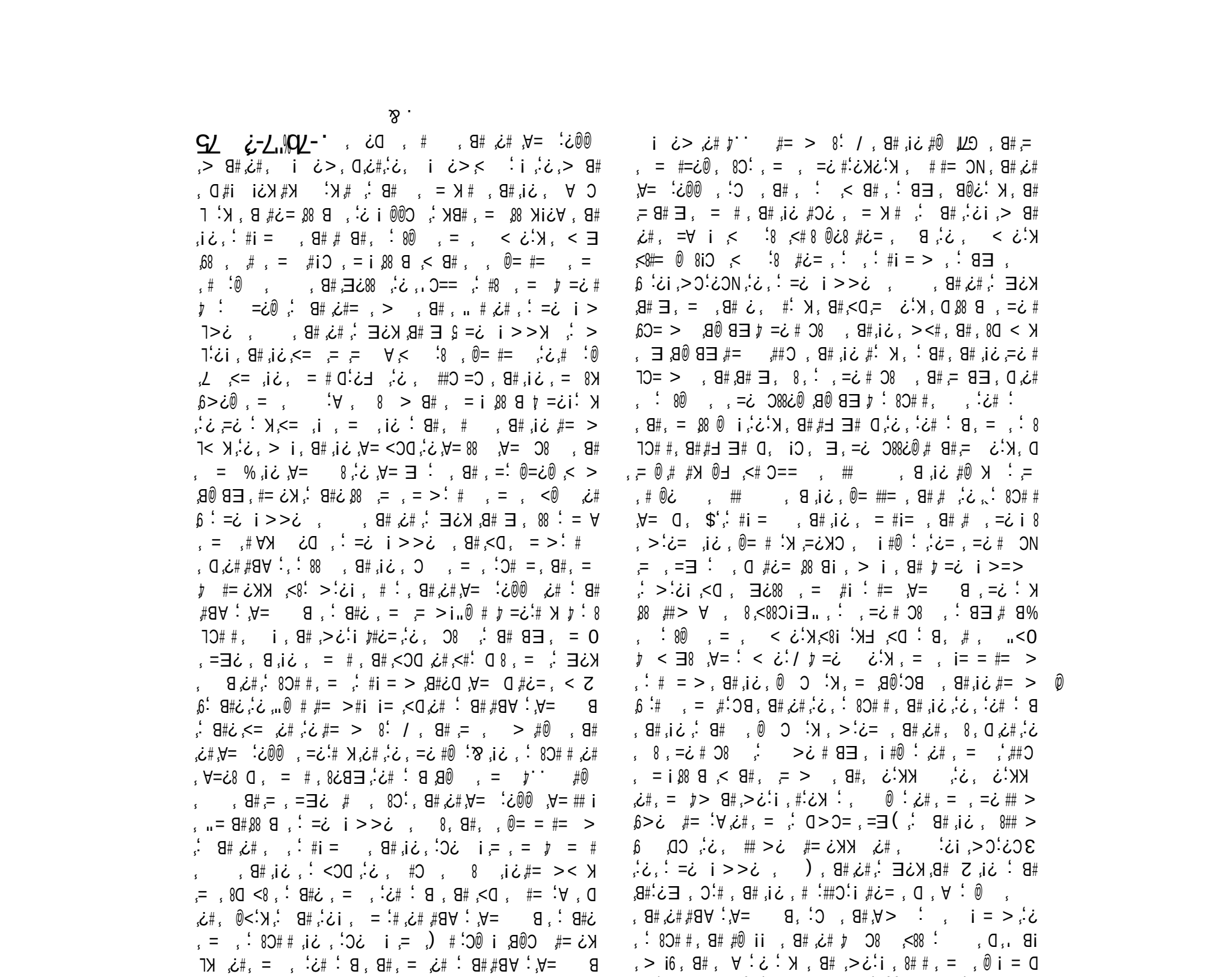
?C#' K ! =A' =>'?#B ;' 88' = '#B #' A; # 'E #B?C#' K >< =#' ?!' =>' <?= >' !?;' ?<K? # ?= ' ='#B ' &F@B NC ;' ?;' ?#B ;' E 4' = ' '#?' ! 88 ' ?!' 1 ;"8 = ' =' ;"= >' = ' p #8 = 'EB ; '#B ;' L 8C # ?= ' ? ' =?#' F@ '#E =#>'K?C= '(@?## 4'*#' 'B ; D>' @8 ; '#B #' #B >' B 88' D;C " 'D>'#B ' ' ' 88' AB#' E #B?C#' = @ ! # '?!' =? # ?= '?!' #B ;' AB#' = ' =! !#< =#

%' = =#' #B '&F @C# ?= ' ?!' /?>= =A ' =') 88?E >

' ' (& *) &' 0 +' Q' 0 + '%B ' S' 1 =A' = '3C = ' !# 4' ?= ; =A' #B #' #B ' DC;AB'?!' 2 A#?C= ' ' #C # ' =' #B ' F#; < # '?!' #B ' (B>; ' ?!' 2 A#?C= 4' = '#B #' #' ' 'A; #' #;?CD8 ' = ' =@?= = =@ '#?'#B 'O A 'EB?'8> ' #'#B ;#>' <>8 ' # =@ ' =' ?< 'K8 @ 4'#?' F @C# ' K?>= =A' = ' KK; # # ?= ' #' 2 A#?C= 4'%B ; L !?; '#B ;' !# 'E #B' >@ ' = '@?= =#' ?!' #B '%B; '& # # '?!' / ;8 < =#' +? '&= @#' = ' @8 ; '#B #' #' B 88' D '8 !?< ' =' 88' #>< ' @?< 9' =A' #?' F @C# ' ''K?>= =A' = ' KK; # # ?= ' A =!#' ''#B '*=B D # =#' E #B ='#B ' > = '?!') 88?E >' D? ')8 =8C@ ' #' #B ' ;@ #' ;?!' ?!' #B 'DC;AB'?!' (#; =; E ;4' EB @B' 8B 88' D ' 8! ' 8 ' = ' !! @#C 88' '!'#B >'B 'D ='?= ' #'#B 'B ' DC;AB'?!'#B ' B>; 4' DC#' K; C @ '?!' =>' ?#B ;' &F @C# ?= '#?'D 'C! ' #' #B 'DC;AB'?!' 2 A#?C= ' @?=!?;< '#?' C ' = 'E?=#' &F@ K# =A' K?>= =A ' A =!#' #B ' *=B D # =#' ?!'#B 'K8 @ ' D? '< =L # ?= ' = 'DC#' K; C @ '?!' ''&F @C# ?= 'E #BL ='#B ' A 8 # '?!')8 =8C@

%' Q' ?<< ! ?=' !?;' /8 =# # ?=' ?!' 1 T'' Q' 8C # ?='?!' % =

$ (* ' ' '!?;'#B ' =# = =@ ' = 'K;?9' .' ?= '?!'#B ' * *= #;>' = ' BC;@B 'E #B ='#B ' 1 =A ?< 4' = '!?;' K; =# =A' = ' ##8 =A' ?!' !! ; =@ 4'#B #' '?;'< AB#' ; ! 'D #E F#'% #C8 ; ' = '?#B ; 'B =A' ; AB#'#?'# = 4' = 'B ; #?; ' @?=@ ;= =A' #B ' 8 =A' = ' ; E =A' ?!' #B ;' # = 4' ; '8 E ' = ' @#' ?!' / ;8 < =#' E ; ' < ' ='#B ' > ; '?!' ?C;' 0?; ' . .' = ' =@ ' #B #' #>< ' ; ' @#' ?!' / ;8 < =#' = ' ?<9' < ! ?= 'B 'D ='; = E ' = 'A ='#?'#B #'KC;L K? 4' = '#B ;' !# 'D =A' ; ?8 ' = ' 9' >; ?C '#?'K;? @C# ' ?'A?? ' 'E?;" '!?;'#B 'C= 9' ;! ''A?? '?!'#B ;' CD @#' = ' K @ 88'!?;'#B ' =@?C; A < =#' ?!'#B ' = !# ; '?!'#B ' A? K ''%B ; !?; '%B ;' # 'E #B' >@ ' = '@?= =#' ?!'#B '&!# # '?!' / ;8 < =#4') '!C ''K?E ;' = ' ?<< ! ?= '#?' B ' J * !# '?!! @ ; '?!' # # '!?;' #B ' #>< ' D =A4' = '#?' #B ' & ;8 ' ?!' ;A>8 ' ; E!C; 4' (C#B ;8 = 4' ! 88 4' O?#B ='Q' O =4 %B ' ! ?C=#' ?!' (# ; '%B ' O?; ' ; ;?!' = ' C#B =4' (;' / #; @"' C< '?!' / ?8E ;#4'%B 'O ;



E #B?C# =>' ! ;#B ;' = 8 !>' ?!' # F =A' #B ' K # 9' 4
?= ; ' ' C!! ; =A ' #?' =>'8 NC ' ?C< ' =A'
#B # B ' ' @ ! ' = ' @?= # ?= ' ' =?#?C;' = '
K " ' K8 =8>' !?;' #' ! ' = ' #B # B ' #B ; ='
; ! ;; ' B <! 8! ' =# ; 8>' #?' #B ;' 0?' C!# @ ' = '
#B ;' !# ' A?? = ! ' = ' NC #>' 2 B @B' / # L
?= ' D =A' #B ' >' B ; ' = ' @?= ; 'D>' B '
!# ' B AB' ?<< ! ?= ;' = ' #B ' &!# # ' ?!'
/ ;8 < =#4 = ' #B >' D =A' C!! @ =#8>' @?= =@ '
?!'#B '#;C#B' ?!'EB #E ' #B ; =' ; K; ! =# '%B >'
? ' @?<< = ' #B ' K # # ?= ; ' @ ! '#?' #B ;' L
!# 'A; @ ?C '@?=! ; # ?= '%B #' #B ;' !# '
< >' D ' K8 '#?' # ;< = ' !C@B' ; K ; # ?= '#?'
#B ' K # # ?= ;' ' =' #B ;' !# ' E ! ?< ' = '
A?? = ! '%B >' !8 88 #B =" ' ! ##

%' =' ! ?C; ' ?!' #B '%?C= ' ?!' & =DC;AB'
= =# #B ;'%?C= ' ?<K =>

' ' (& *) 1 &' 0 +' Q' 0 + ' ?=9' '
; =A' #B #' D ' #B ' S' @#' / ; Z S' Z 1 Z J Z H7
?!' ;' D8 ! ' < <?; ' 88' #B ' *=B D # =# ' E #B ='
#B 'DC;AB' EB #B ;' < ## ' DC;A ! ' ?;' =?#' F9'
;@ =A' #; !! @"' ?;' B =A' @B =A ' E #B =' #B '
! < =' ; ' 8> D8 ' #?' D ; ' #B ;' K ;#' ?!' 88' # F '
=# ' E #@B =A ' E ; =A ' = ' 88' E# ' = '
; @ ' #?C@B =A' = ' @?=@ ;= =A' #B ' 1 =A' = '
DC;AB' = ' #' B ' D =' !; NC =#8 ' !?C= ' <?; '
@?= C@ =A' D?#B' !?;' @C; =A' ?!' #B 'KCD8 @"' K @ '
= '#B ' ' = '*=# ; #?!'#B '*=B D # =# ' 8> D8 '
#?' E #@B' = 'E ; 'E #B =' #B ' @ #>' ?!' & =DC;AB4'
%B #' #B ' < 'D 'AC ; 'D>' '@?<K =>'?!'#; = '
= ' FK ; =@ ' ?C8 ; '#B =' #B #' #B '*=B D # =# '
D 'E #B ; E= ' !;?<' #B ;' *<K8?>< =# '#?' ## = '
#B ' < '?;' ?#B ;E > 'KC#' #?' @B ;A '#?' B>; 'C=L
FK ;#' K ; ?= '#?' CKK8>' #B ;' D! =@ 'EB?! '! L
8 #>' < AB#' =?#' ! 8>' D ' ; 8> ' CK?=' K @ 88>' ='
#B ' # < ' ?!' =>' #;?CD8 ' ?;' @?<<?# ?= ' =' #B '
?C=#; >4 = '#B #' #B '* A !#; # ' =' #B ' ' #>'
'; ! ' = ' @?<K =>' ?!' & AB#>' =' =# = 88 '
= ' @; ;' #B; ' ?;K?; 88 ' #B; ' ;C<< ; 4 #B; '
(; =#' = '#E?' 0 # == =# '#B 'S '?!'JC= '8 !#
= ' @8 ; ' #B 'K; =#' / ;? ? #' K# = 4 EB @B'
?<K =>' B '@?=# =C 'C= ;' @?=!# =#' K >' ;'
=@ ' = ' #B ' DC;A ! ' = ' *=B D # =# ' B '
#B ; D>' D =' !; ' ?!' #B ' #;?CD8 ' = ' @B ;A ' ?!'
E #@B =A' = 'E ; =A' = '8>" E > '%B ;' L
'@?=! ; =A' #B 'A; # DC;#B =' ?!' D# ' E'
D>' #B ' A?? ' %?C= ' ?!' & =DC;AB' = ' #B #' #B ;'
?<<?=' A?? ' '=?#' C!! @ =#' !?;' !; > =A' #B '
@C % =#' ; =#' ?!' #B ' D# ' E #B' #B ' @B ;A ' ?!'
#B 'A? ;=< =#' ?!' #B ' @ #>' = ' =@ =#' FK =! '
D > ' #B ' K >< =#' ?!' #B ' ' @?<K =>5' = '
#B #' #' ' <?!#' ; !?= D8 ' #B # #B ' DC;A ! ' = '
=B D # =# ' EB?' ; ' #B ; D>' 8 D ; # ' !;?<' #B ' ?;L
= ;>' E #@B =A' = ' E ; =A' B?C8 ' D ; ' #B '
DC; =' ?!' #B ' < '%B ; !?; '%B ;' J !# 'E #B'
@?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' ? ' KK;? '
?!' #B ' ; ! =A' ?!' #B ' ' ?<K =>' 'A?? ' =

EB ; ', ' . 20' ! 88' ?C#' %B #' ?< '?!' #B ' ?<< !9'
?= ; ' < >' D 'C= D8 ' #?' ## = '#B ' ; @ '#B;?E'
#B' @"= ! '?;'?#B ;'"=?E= ' <K < =#4 %B ; L
!?; '#B ;' !# ' @8 ; '%B #' #B >' B 88' D '@ ?;9'
!C88' #?' ! 88' #B ;' K8 @ 'E #B' ?#B ;' K ; ?= 'NC 8 ! '
EB?8 ' ? #B ' !?;' ! #B!C88' @B ;A =A' ?!' #B ' < '
B 88' D ' # " =' D>' #B ' 0?; ' B =@ 88?;' ?;' =' B '
D =@ 'D>'#B ' 0?; ' / ; =#' ?!'#B ' ?<< ! E= '
!?;' #B ' #>< 4' = ' ?; = ' #B ' K; =#' ?<= !9'
?= '#?' = C; ' >' = 'EB 8 '#B ' < 'D ' @B ;A9' '
' D ' #B ;' !# 4' = ' #B ' @#' @; #' = '
=# =@ ' #B ;?!' #?' B ' #B ' !?;@ ' #; =#B' = '
!! @#' ?!' ' @; #?;' =# =@ ' ?!' / ;8 < =#' = '
#B ' 0?; ' ?!' ' (! ?=' #?' A; =#' 8 ## ; ' ?!' B?;= =A4'
K?>= =A' = ' ?#B ; ' = @ 8 ;>' #?' D ' ; @#' CK?=' '
#B ' ' @; #' = ' =# =@ ' =' < == ;' @?=# =L
' =' #B ' !?; ' ?<< ! ?= 4' = '#B ;' !# '
E #B' @?=# =#' !?; ' B ; D>' !@B ;A ' 88' !?;< ;'
?<< ! ?= ' @8 ; =A' #B ' < '#?' D ' FK>;

%' =' ! ?C; ' ?!' B / ' 2 88 <' $;AC ?= '
?!' 1 #8?@B

U' & %' %B ' K # # ?= ' A =' =' = 'K; =# '#?'
#B ;' !# 'B AB' ?<< ! ?= ;' = '#B; '&!# # '
?!' / ;8 < =#' D ' B ' 2 88 <' !! ;AC!?=' ?!' 1 #L
8?@B' (B E =A' %B #' EB ; '#B 'K # # ?= ;' E '!?; 9'
! C8# ' = '#B 'A !#' ?!' B ' !?; ! C8#C; 'A; =# '#?'
?2' A 8#B?;K' E #B' EB?<' B '!?= ' = '!; = '
@?<K?= '!?;' #B ' ?C< ' ?!' =>= '#B?C = ' < ;" '
!?;' EB @B' ; K # # ?= ' ' K;? > 'D>'#B ' A = ; 86'
@#' ; C@ =A' !?; ! C8#C; ' DC#' E #B?C#' =>' D = 9'
! # '#?'#B 'K # # ?= ;4 *=' ; K @#'#B #'#B '! ' ?88?9'
= ' ' ' !#; =A ;' B =A' = #B ;' ; ! =@ ' !# # '
=?;' !! @#' =' (@?#8 = ' ?' #B #' B ' @ =' FK @#' =?L
#B =A' #B #' E >4 0>" 'D !> '#B 'K >< =#' ?!'#B '
! ' ?<K?! # ?= ' #B ' K # # ?= ;' E '#B;C!#' ?C#' ?!'
B ' !# # ' E⁄?;#B' '#B?C = 'KC= ' @?# ' > ;8>' !?;'
#B ' K @ ' ?!' & AB#' > ; 'E #B?C#' B =A' @@ ! '
#?' CK8 !#' ?= ' ! ;#B =A' ?!' B ' =#' B?#' ?=' #B '@?=L
#; ;>' E ' @?=!#; = ' #?' !8>' E #B' B ' E ! ' = '
! < 8>' #?' ?88 = 'E& ; ' B '@?=# =C ' 'D = B '
< =' #B ' !?; 'EB?8 ' AB#' > 7 '*=' #B 'EB @B'
K @ '8 " E > 'B 'B?C! 'E ' #C;= '#?' 'A ; !?= '
= '=?#' ?=8>' K? 8 ' = ' 8<?!#' ;C = 'E #B =' DC#'
#B 'E⁄B?8 'K8 =# =A' = 'K?8 @>' @C#' ?E= ' = ' 9'
!#;?> ' E #B?C#5' = ' =A' #B #' #B;?CAB' #B ! '
#B ' K # # ?= ; ' # 9?CD8 ' B ' B ' D =' D;?CAB#' #?'
A; #' #; ! 4' = ' #B #' #B ' DC;#B =' #B ; ?!' '
88' ?' B >' CK?=' B ' ! < 8>' #B #' ; # #C# ?= '#?'
B <' @ =' 8 ' B <' 8 ##8 ' E #B?C#' B ') ; @ ' #B '
?<< ! ?= ;' = '&!# # '?!' / ;8 < =#' #B ;' K ;L
@C8 ;' @?= ; # ?= ' = ' ! !# =@ ' %B ; !?; '
; =A' #' < AB#' K8 ! ' B ') ; @ ' #B ;' J * !# '
?< ! ?= ;' = ' 0?; ' ?!' / ;8 < =#' *=' @?= L
; # ?= ' ?!' #B ' K; < ! '#?' @?<< = ' B ' @ ! '
= ' C!! ; =A '#?' #B ;' !# '!?;' C@B' ' C!#' = '
A; @ ?C ' ; K ; # ?= ' = ' =' !C@B' '< == ;' '#B >'
,12!' /-' :!-26-5' 3"' #+273' 275' 5-3-+ . %7-' 275' 3123

```
?C=@ 8# #B =" ' ! ## #?'   D = ' #B '    ' ?<K =>'
#B # #B ' DC;A !   '   = ' *=B D # =# ' !8 8# D ' 8> D8 '
!?;' E #@B =A' = ' E ;  =A'  '  ' K;? > ' D> !?;L
< ,'   @# ' ?!' / ;8  < =#    = ' K ;# @C8 ;8> D>'   '
  @# / ; 5 S' 1 ' J ' H EB @B'  @# %B ;' B8  !9
#  ' E #B' @?=! =# !?;!   '  ?  ' ; # !  ' = ' KK;?
  =' #B ' EB?8 ' B    '  = ' @8 C!  ' #B ; ?!4  F@ K# ='
 ? ' ! ,'  ' #B ' ?;   = ,'> E #@B =A' = ' E ;   =A' '
  !@B ;A  ' D>' #B ' K;   =#'  @# =' #B ' @ ! ' D?  '
< =# ?=   '  88 == ;8  5 % #'   '  8E > ' B ; D>'   L
@8 . ' #B # #B ' < <D . ' ?!' #B ' ?  ' A ' ?!' JC!# @ '
!! 88 =?E > ' D ' 8> D8 ' =' =>' K :# ?!' #B ' !?;   '
  FK =! ' DC# !!  '' D ' F  <  ' #B ; !;  ' @?=!?;< '
#?' #B  ,' !?;< ,' K;  8  A  4    '    =A' 8 ?' #?' #B '
?!! @ . ' =  '  ;  =# ' ?!' #B '    =# #B  ;' K;  8  A  '
    = ' *<<C= #   '  '  @@?;
```

```
%  &*  '     !#  '   ?; < !  ?= .'     ?C;=  '
#B ' / ;8  < =# # 88   C=  >' = F# '  = ' @?=L
 # =C  '  '' @ C!  ' = ' K;?@ !  ' # 88 #B # #>  <
```

```
%' &+*   '    )   4
```

```
%  &'   ?88 ' ?!' / ;8  < =# @ 88
```

```
%  *(' + >' E ' K; ! =#  '  =' / ;8  < =#   ' #B '
O  . ' ?!'  :?  '  = ' ?#B ,'  . #?;' ?!' #B ' B>; ' ?!'
     <  ' '   K;   =# # ?= ' = ' K;?# !# # ?= '  A  =!#'
#B '  @# K  # =' !  ?C; ' ?!' #B ' O  . ' ?!'  ?88? =' '
EB  ; ?!' #B ' % =?;'!?'?E
```

```
%  &'   K;   =# # ?= ' ?!' #B '    . #?; ' ?!' #B '
  B>; ' ?!'    :=  ' %?' #B ' O?; '  ?<<   ?= ;' B '
 ) ; @ ' =  '   ?=?; D8 ' &!# # ' ?!' / ;8  < =#
```

```
2  &  &  (' %B  ; ' E  ' ' /  # # ?=?' A   =' =' #B  '
?#B ,'   >' #?' >?C,' ) ; @ ' =  ' O?K '   @8 >< =A'
 A =!# =  '  @# K;   =#   'D>' #B ' O  . ' ?!'  ?88?  =' '
!?;' &F  <  =A' B ' O =  '  =' #B '    B>; ' @ 88   '
!! ; =#?!!' ?!'  ' @?=!  . D8 ' K ;# ?!' B '  !  ' =  '
?;  . =A' #B '   < ' #?' D ' 8 > ' ?=' #B ' ?#B ,'    . L
#?; ' ?!' #B '    B>; ' ?!'   ;= 4 EB @B' D  =A'  ?#  '
 E #B?C# B  ;   =A' ?!' #B '    ' ?#B .' B ; #?; ' = ' ='
 D! =  ' #?' #B  .' A;  # K;  C  @ 4 DC;  = =A' #B  .' '
8 =  '  E #B?C#   =>' = E' ;    8C # ?= '  E #B' #B '
KCD8 @"' DC;   = '   E' = ' K > D8 ' D>'  =?#B .' B ; 9'
#?;' %B  ; !?; ' %B > BC<D8>' K;?# !# #B # =?#B =A'
@?=#  =  ' =' #B  #   @# < > ' K;  C A ' #B ' !  '
?#B ;' B  ; #?; '  #?' #B  .' K;   # ' *=# ; !# ' =' #B '
!   '  < ## ,' ,'  @@?;  ' ?!' #B ' O E'   = ' #B # #B '
#B  ,' K;?# !# # ?= ' < >' D ' < ,' ' 8 ' !CD!@; D #C;'
 '     <KD 88 +' ;?  '  '  ;?
```

```
%  &*  '     !#  '   ?< < !  ?=  ' ,'     ?C;=  9'
#B ' / ;8  <7 # 88 #?' <?:;?E
```

```
+    ;  =A'  8!? ' #B # EB =' #B '    A !D; #' '  =
```

S U

%' & * ') 4

J ' O ' , , **4 + ,

% &' ?88 ' ?!' / ;8 < =# @ 88

%' =' ! ?C; ' ?!' #B ' C;AB' ?!' = #;C#B ; E !# ;

' ' (& *) &' 0 +' Q' 0 + ' %B 1 =A' = ' 3C = ' !# ' = ' #B ' #B; ' &!# # ' ?!' / ;8 < =# ?= ; =A' #B # #B ' DC;AB' ?!' =L #;C#B ;' E !# ;' B =A' D =' A; #8>' *<K? ; !8 ' #B;?CAB' #B ' @ >' ?!' #; ' #B ; =' = ' B ' *<9' K?8 # K= ' #B ; CK?=' ' =' CAC!# VS' A= ' =' / ;8 < =# #B ;' K; 8 A ' ' ' DC;AB' ?> 884 = ' 8 ; ' CK' #B ;' B ;# ;' ?!' ?> 8# ' =' !C; ' @?=! =@ ' #B # #B >' B?C8 ' =' 88 #>< ' #B T !# ;' B 'D =' F < ' = ' !; ' !;?<' K >< =# ?!' 88 KCD8 @"' DC; = ' ' ' DC;AB' ?> 884 = ' EB @B' E ' @@ K# ' =' / ;8 < =#4 CK?=' @?= # ?=' #B # #B ' ; !# ?!' #B ' ?> 88 DC;;?E ' B?C8 ' 8 >' ?=' #B ' ' DC;AB ' K ;# ?!' #B ' # F# ;?88 <?=A!# #B <9' ! 8 ' = ' FKC=A ' #B ' ' DC;AB' ?C# ?!' #B ;' DC;;?E' ;?88 4 =?#E #B!# = =A' EB ; ?!' #B ' ?> 88 DC;;?E ' ; !C =A' #?' ? ' #B ' < 4 #B ' ' DC;AB' E ' # 88 @?=# =C ' = ' @ 88 ' D?#B' =' ?88 ' ?!' / ;L 8 < =# = ' DC;;?E ' = ' EB =' @ ! ' = ' CKK8 ' E ; '8 ' ?=4 = ' <K? ' D>' ?= =# ?= ' = ' / ;L 8 < =# ' #B ; !# ;4 #B ' ' DC;AB' E ' 8E > ' < ' 8> D8 ' Q' *<K? ' CK?=' D>' #B <' ' #B ' ; !# ?!' #B ' ;?> 88 DC;;?E ' !?;' #B ;' K;?K?;# ?= 86 K ;# ' ?!' 88 #B ' ' *<K? # ?= ' = ' NC ;# ; ' CK?=' !?;' K >< =# #B ; ?!4 = ' @B ;A ' > ;8>' !?;' < " =A' NC ' =' &F@B NC ;4 ' #B >' B ' D =' !?;< ;8>' D !?; ' #B ' ' ; ! A= P= ' = ' =A' #B ' ' DC;AB' B #B' D =' !# 88 " K# C= ;' 88 *<K?! # ?= ' = ' KCD8 @"' DC; = ' EB # ?< ;' E #B' = ' ' #B ' ; !# ?!' #B ' ;?> 88 DC;;?E ' ! =@ ' #B ' ' ; A= 9' # ?= ' =' #B ' ! < ' < == ;' ' D !?; ' %B ; !?; ' #B ;' * * !# ' E #B' @?=! =# ?!' #B ' ' #B; ' & # # ' ?!' / ;8 < =#4 +? ' B ; D>' + @8 ; ' %B # #B ' ' DC;AB' E ' =?;' ' =?E > ' !# ' ?!' #B ;' ;?> 8#>' D>' #B ' !?; ' ; A= # ?= ' ! =A' #B ' < =' ' =?E > ' ## = ' # ' #;C ' = # ' = 4 DC# #B # #B ' ' DC;AB' '8 A 88>' = ' E ;; =# D8>' C! 4 # 8 !# < AB# B ' C! 4 = ' < >' !?;' #B ' !C#C; ' !# '' C! 4 88 # ' !?==@;' K; 8 A ' ' ' DC;AB' ?> 88 @"8 " ' =' 88 ; K @# ' ' D !?; ' #B ' ' ; ! A= # ?= 4 = ' ' # B ' = ;' D =' < 4 = ' =?#E #B # = =A' #B ; ?!' = ' ; = ' %B ;' 8 ;" ' ?!' A !# ;' #?' 8> ;' D @"' #?' #B ' A !#; # ' ?!' #B ' ' DC;AB' = ' #?' #B ' *=B D # =# ' #B ; ?!' =' @ ! ' #B ; ' D ' =?' < A !#; # ' #B ; =# 88 !?;' #B ' #>< ' #B ;' ' B ;L # ;' ?!' ?> 8#>4 !K =! =A' B ; D>' E #B' #B ' !?; ' ! A= # ?= ' = ' 88 #B # B #B' !?88?E ' #B ; CK?=' !?;' =?E' Q' ;' = ' #B ;' !# ' E #B' @?=! =# !?; ' B ; D>' ! = ' = ' C@ ' #B ' @# ?!

' ' *=B

/ ;8 < =# !?88?E =A' CK?=' #B ' ' ! A= # ?= ' =' #B ' ' <?= #B' ?!' CAC!# VS' *=' #B ' B 88 B ' = ' ;# @8 ' #B ; ?!

%' !?;' B?8 =A' #B ' ?< < ! ;' ?C;# ?!' D ; =' #' #B ' DC;AB' ?!' D ; =

' ' (& *) &' 0 +' Q' 0 + ' %B ' V' 1 =A' Q' 3C = ' # ' E #B' #B ' >@ ' = ' @?=! =# ?!' #B ' &!# # ' ?!' / ;8 < =# ?= ; =A' %B # #B ' ?< < ! ;' ?C;# ?!' D ; =' E ' 8L E > ' =' C! ' #?' ## = ' D ' B?8 =' E #B =' #B ' DC;AB' ?!' D ; =' ' ' DC;AB' ?!' #B ' B>; ' <?!# @?<<? ?C ' !?;' #B ' 0 A ' EB?' ; !?;# #B #B ;' D?C# #B ;' 8 E!C '' ! ; 4 Q' !?;' #B ' EB?8 ' < <L D ; ' ?!' ?C;# EB?' B ' #B ;' ; ! =@ ' =' #B ' ' DC;AB' C=# 88 #B ' > ; ' * ' ^P' Q' F#>' #E?' #B # &K 8@?K @ ' E ' !# D8 !B ' #' EB @B' #>< ' #B ; ' E ' = ' @# ?!' / ;8 < =# <K #; # ' ; = =A' Q' KK? =# =A' #B ' ! ' ?< < ! ;' ?C;# #?' ## =' #B ' ?8 ' #?C=' ?!' D ; =' =' ; K @# #B ' < = ' E ' #B ' 8B?K' ?!' D ; = ' #' = ' =?E' ! =A' #B # &K @?K @>' ' =?E' D?8 8B ' = ' #B # #B ' ! ' DC;AB' ?!' D ; =' ' =?# ?=8>' #B ' K8 @ ' EB ; ' #B ' ' ?< < ! ;' ?C;# E ' =' C! ' #?' ## Q' D ' B?8 =' D !?; ' #B ' ' @#4 DC# 8!? ' ' #B ' <? # @?<<? ?C ' D?#B' !?;' #B ' 0 A ' Q' < <D ; ' ?!' ?C;# !?;' #B ' @ C! ' D? ' E; ## =' %B ; !?; ' #B ;' !# ' E #B' >@ ' = ' @?=! =# ?!' #B ' &!# # 4 ?!' / ;8 < =# B #B' #B?CAB# ! ## #?' !@ = ' = ' B ; D>' ! = ' #B ' !?; ' @# ?!' / ;8 < =# Q' '' ?#B ;' @# ' ?!' / ;8 < =# KK? =# =A' #B ' ' ?< ! ;' ?C;# #?' ## = ' D ' B?8 =' E #B =' #B ' ?8 ' %?E=' ?!' D ; =4 = ' ; = ' #B ' K; ! =# ?< ! ; ' ?!' D ; =' = ' #B ;' C@@ ! ?; ' #?' ! ##4 !! F' Q' B?8 ' #B ;' ?; = ;>' ?C;# ' E #B =' #B ' ' DC;AB' ?!' D ; =' ?#E #B!# = =A' ?!' #B ' !?; ' @# ?;' =>' ?#B ;' @# #?' #B ' @?=#; ;

%' =' ! ?C; ' ?!' =;>' 0?; ' ; ;?!

' ' (& *) &' 0 +' Q' 0 + ' %B ' (' 1 =A' = ' 3C = ' * * # ' = ' #B; ' &!# # ' ?!' / ;8 < =# # " =A' #?' #B ;' ; ?C ' @?= ; # ?= ' #B # D>' #B ' 8 # ' 8 < ' ?!' AB# *#' ' K;? > ' #B # #B ' *<K? =A' ?!' F#; ?; = ;' !>= ' ' @?=9' ' #; ; '#?' #B ' 0 E4 = ' #B # 88 !?; ! C8#C; 4 !!>= 4 0?! ' ?!' ?!! @ 4 *<K; !?=< =# 4 D = 8B< =# 4 KC;9' !C # 4 K ; @C# ?= 4 = ' ; A?;?C ' &F @C# ?= ' ?CAB# #?' D ' @?=! ; ' = ' #B ' K ;# ' 8 ! ' ; ; ! ' = ' #B # K ;# @C8 ;8>' =;>' 0?; ' ; ;?! ' E ' =' #B ' > ; ' V ' CK?=' #B ' K; # =@ ' ?!' B ' 0 ' B =A' D =' # #E?' B?C! ' ?= =# @8 ' E #B' A; # ; #>' @?= = ' D !?; ' #B ' K; >' ?C= '4 = ' !# ;' ' #E 8 ' <?= #B ' FK =! ' = ' F # ?C ' K;?@ ! 4 !>= ' =' #B ' ?C< ' ?!' = ' #B?C! = ' KC= ' !# ;8 =A4 ' 8!? ' =' #B ' !?C< ' ?!' ?= ' #B?C = ' #B; ' BC= ; #B' = ' ! !>!# ' KC= ' @?# ' CK?=' #B

) 9 3 ' ' '

' ' '*=B

; ' #B # #B ' @# !8 88 =?# D ' @?<K; B = ' C= ;' #B ' ' (8 ?' JC; ' #?' D ' K !# =' #B ' / ;L 8 < =# ' DC# ' FK; 8>' F@ K# ' #B ; !; ' = ' #B # #B ' ! < =' !8 88 B ' #B ' !! @# ?!' ' KCD8 @"' 0 E

%' =' ! ?; ' ?!' ‖ 2 88 <' ‖*=#?!8F' ?!' D ; ; ?;' Q ?#B ; ' = =# #B ;' < A

' & %' %B ' K # # ?= ') =' =' = ' K; ! =# ' #?' B ') ; @ ' %B ;' !# ' B AB' ?<< ! ?= ;' = ' #B 'B?=?C; D8 '&!# # ' ?!' / ;8 < =# D ' ‖ 2 f g *=#?!# ' ?!' D ; ; C;4 !! ;NCB ;' %8 ; ' ?!' + C=g' < A8 ! B' 2 88 <' ‖ =#?!B' ?!' ?;8C<' = ' 0 @BL 8 =' ‖ ###?!8 ' ?!' + ?#4 (B E =A' %B # EB ; ' CK?=' #B ' > ' ?!' JC8>' G' = ' #B ^ >' ?!' K; 8 '8 !# ? 8 *‖+?= 8 ' =' @?<K = ' E #B' #B ' ?#B ;' D 88 ' =' ;< ' ' <? 8 D ;D ;?C!8>' = ' =BC< = 8>' =' @?=# <K# ?!' #B ' A? ;=< =# DC;= 4 K 88 A 4 = ' #;?>' #B ' K # # ?= ; ' E 88L =A' B C! ' = ' #B ' B?C! ' ?!' #B ' K # # ?= ; ' # =g = =# 4 @ ;;> =A' 8?=A' E #B' #B <' #B ' B 88 K?;# D8 ' A?? ' CK?=' #B ;' A;?C= 4 #B; #= =A' 88 #B ' K # L # ?= ; ' # == =# ' E #B' #B' EB?' E?C8 ' =?# ?>= ' E #B' #B <' #B ; D>' FK?! =A' 88 #B ' K # # ?= ; ' B ' #?' #B ;' !C;>' Q < 8 @ 4 =?# 8 =A' !?< ' ?!' #B <' ?' <C@B' ' ' K ; ' ?!' K8 ' !?;' D =A' >' EB @B' #B ' K # # ?= ; ' = ' #B ;' # == =# ' ; ' =?# ?=8>' 0?8 ;(' # K; ! =# DC# <C!# ?' @?=# =C ' C=L # 8' #B >' D ' CKK8> ' E #B' ' = E' % == = ; 4 #B ' !?; < ;' D =A' ; C@ ' #?' D AA ; ' = ' ' !# ; =A' @?= # ?=' %B ; !?; ' ; =A' # < AB# K8 ! ' B ') ; @ ' Q 0?K ' #?' # " ' #B ' K # # ?= ; ' @ ! ' =#?' ?=! ; # ?= 4 = ' #?' ; < ## #B ;' 8?! ' #?' #B ' ?<< ! ?= ; ' ?!' CKK8>' ?!' #B ' B>; ' ?!' *=C < ! ' 2 #B =' EB @B' #B ' K # ?= <' 0 = ' 8> ' ?;' #D ;' 3C?;C<' #/B ' 0 ; ' ?!' ‖ =#?!8 ' D =A' 8E > ' ?= ~ #?' # " ' #;> 88 #B ; =4 C! ' 88 0 A 86 K;?D g # D= ' !?;' 8 NC # =A' #B ;?!4 = ' #?' ; K?;# #B ' 8 < ' #?' #B ' = F# (! ?= ' ?!' #B ' ?;' =>' ?#B ;' =g !C =A' / ;8 < =# ' #B ' .' K # # ?= ' # 8 =#B' D !! ' 2 B @B' / # # ^< 'D =A' B ; ' D>' %B ;' L !# ' B AB' ?<< ! ?= ;' #B ' &!# # ' ?!' / ;8 L < =#4 #B >') ; =# ' = ' B ; D>') ; =# ' ?<< !g ?= ' #?' #B ' ?<< ! ?= ; ' ?!' CKK8>' ?!' #B ' B>; ' ?!' *=C < ! ' EB i ' #B ' K # # ?= ; ' 0 = ' 8> ' ?;' #B ;' 3C?;C<' !?;' 8 NC # =A' = ' @?A=?!@ BA' #B ' / # # ?= ; ' < A ' C!# = ' =' < == ;' D? 4 < =# ?= ' Q #?' ! C ' ?C# E ;; = ' #?' @ # ' ' K ;g ?= ' @?=@ ;= ' = ' E #= ! ' = ! ; ' !?;' ; g !> =A' #B ;?!' #?' ?<K ;' D !?; ' #B <' !?;' #B # !! @# = ' #?' ; ? ;# ' #?' #B ' = F# ! !# ?=' ?!' #B ' ?;' ?!' =>' ?#B ;' =!C =A' / ;8 < =#

%' =' ! ?C; ' ?!' %B ' 0 ; ' ?!' %=#? B' !?;' B?8 =A' ?!' ! ; ' Q < ;@ # ' =' D! 8 ' =' ?! ' + C= @B#?C= ' =' A =?@B' Q 1 KK @B' =' 0?@B D ;

' ' (& *) &' 0 +' Q 0 + ' %B ' V ' 1 =A' = ' 3C = ' !# 4 = ' &!# # ' ?!' / ;L 8 < =# # " =A' #?' #B ;' @?=! ; # ?= ' #B # # E 88 D '= @ ! ;>' Q @?= = =# !?;' B ' # ' !CD @# ' = ' *=B D # =# ' E #B =' #B ' B>; ' ?!' *= ;= ' %B # #B ; ' D ' E "8>' < ;@ # ' Q !; ' ! ; ' B?8 =' # #B ' K8 @ ' C= ;' E; ## =' EB ; C=#?' 88 #B ;' !# ' 0 A ' < >' ; !?;# !?;' DC> =A' = ' ! 88 =A' ?!' D !g # 88 Q 88 !?;# ' ?!' ;@B =# @?<<? # ' EB #g ?< ;' #B # !# 88 D ' D;?CAB# #B ;#?' D ' =>' K ;g ?= ' %B ; !?; ' #B ;' !# ' E #B' >@ ' = ' ?=! =# ?!' J ' ! ' &!# # ' ?!' / ;8 < =# + ?#B' 88?E' #?' 0 C@B8 = ' ! =#?8B' ?!' %?;@ !#8 'B ' ; ' = ' !C@@ ! ?; ' #?' B ' #B ' E "8>' < ;@ # ' = ' !; ' ! ; ' !?88?E =A' B?8 =' # #B ' K8 @ ' C= ;E ! =' ' ' E "8>' < ;@ # # #B ' %?C= ' ?!' D! 88 =' ?! ' #?' D ' B?8 =' ?=' E = ! >' E #B' ' !; ' ! ;' #B ; # #?' D ' B?8 =' > ;8>' CK?=' #B ' > ?!' #?' B ' @ 88 ' (7 !! B ' = &; @# ' #B ' ! ' %?C= ' ?!' D! 88 =' ' DC;AB' ?!' ;?=>' ‖ *# <' ' E " 8>' < ;@ # #?' D ' B?8 =' # #B ' %?C= ' ?!' 1 KK @B' =' 0?@B D ;' CK?=' E = ! >' E #B' ' !; ' ! ;' #?' D ' B?8 =' #B ; # > ;8>g CK?=' #B ' >' ?!' %?' D ' @ 88 ' ([! ; 4 !0 ' &; @# ' #B ' 8 ' %?C= ' ?!' 1 KK @B' =' ' C;AB' ?!' ;?=>' #?' D ' @ 88 ' #B ' DC;AB' ?!' L ;?=>' ?!' 1 KK?@B' 8 " ' = ' ?!' #B ' ! ' ! ; ' #?' @?=# =C ' !?;' #B ' K @ ' ?!' F' > ' = ') ' Q) ; =# ' #?' #B ' ! ' 0 C@B8 = ' 8=#?8B' #B ' B '8 %?' 4 C!#?< 4 <?8C< =# ' K;?! # ' = ' C# ' 8?=A =A' ?;' #B # D>' #B ' 0 E ' = ' K; @# m' ?!' #B ' 8< ' D 8?=A ' ?;' KK ;# = ' #?' =>' =' #B ' 8 " ' @ ! ' #?' D ' @?88 @# ' = ' =A #B ; ' D ' B <' B ' # @"! = =' ! ; =# ' ?;' ?88 @#?; ' #?' B ' KK? =# ' !?;' #B # !! @#

4 %' & @ = =A' #B ' $?;! #C; ' ?!' (;') ?;A ' <KD 88 ?!' ! =?@"

' ' (& *) &' 0 +' Q 0 + ' %B ' VS' 1 =A' = ' 3C = ' # ' =A' @?= ; ' #B ' K;?@ ' ?!' !!?;! C8#C; ' 8 ' D !?; ' #B ' B AB' ?C;# ?!' / ;8 < =# CK?=' #B ' . ' >' ?!' JC= ' ' > ; ' A =!# #B ' @ !# (‖ CAB' <KD 88 ?!' !#=?@"' = ' (;') ?;A ' <KD 88 >?C=A ;' ?!' ! =?@"' =?E' JC!# @ ' 8 ;" ' E #B' #B ' =# =@ ' = ' ??< ' ?!' !!?;! #C; ' #B ; ?=' K;?=?C=@ ' = ' #B # 8D # ! ;!# ' K; =@ K 86' = ' #B =' = ' # ?= 86' 8>D 88 ?!' < =>' 88 A ' #; !?= B8 ' ' E ; ' FB D #

#B <‘ > #‘ #B ‘?=8›‘ K? =#‘ =! !# ‘?=4‘ !?C= ‘
. ; 8 =#‘ = ‘ K;?% =‘ E ‘ #B ‘ A = ; 88‘ ?!‘#B .‘; D L
=A‘ @ ! ?:›‘ #?‘ #B ‘ 8 # ‘ @?= K ; @›‘ A =!# #B ‘
! # ‘ 1 =A‘ B;! ‘ #B ‘ (@?= ‘ = ‘ J < ‘ #B =‘
+C" ‘ ?!‘ ?:-" ‘ B ‘ D;?#B :‚4‘ EB @B‘ =?# B =A‘
D =‘ K @ 88›NC 8 ! ‘ E ‘ =?# =‘ O E‘ ; 8 =#4
D > ‘#B # 88 #B # =‘ . 8 #›‘ KK . ‘ #?‘ B ‘
D =‘ C= ‚ ;‘ #4 E ‘ #B # #B ‘ ! ‘ @ !# (,‘ CAB‘
= ‘ (,‘) ?:A ‘ <KD 88 B ‘ @?:·‘ K?= ‘ =
8@?C;! ‘ E #B‘ ! . 88‘ K :!?= ‘ D?C#‘ #B ‘ < =
!?;‘ F C =A‘ #B ‘ ! ‘ +C" ‘ ?!‘ ?:-" ‘ !:?< ‘ !C@9
=A‘ #?‘ #B ‘ :?E= ‘ ‘ #B ‘ <?!# !! @#C 88
< = ‘ #?‘ ! @C; ‘ #B ‘ / ;?# !# =# 8 A ?=‘ = ‘ #B ‘
O E‘ = ‘ 8 D :# ‘ ?!‘ #B ‘ #B; ‘ " =A ?< 4‘ ‘ #?‘
EB @B‘ #‘ ‘=?E‘ < = ! !# D›‘ #B ‘ @8 : # ?= ‘ ?!‘ #B ‘
!8 # ‘ ?!‘ #B ‘ " =A ?<‘ A# K ‘ ! +C" ‘ ?!‘ ?:-" ‘
!# ;E ‖ ‘ 1 =A‘ ! = =A‘ #B # B ‘ !?:! # ‘ #B ‘
; AB# #?‘ #B ‘ :?E= 4 #B # #B ‘ ! ‘ @?:; !K?= =A‘
= ‘ !@?C;! =A‘ B =A‘ K;?@ ‘ =? ! : ‚‘
E ‘ E " ‘ = ‘ !; ?8?C ‘ = ‘ =?E > ‘ : 8 =# #?‘
=! %‘ #B ‘ @:›< ‘ ?!‘ %; !?= 4 ‘ 8!? ‘ #B # #B ‘
K;?D # ?= ‘ C@ ‘ =‘ #B ‘ ! =# =@ ‘ D =A‘ D?#
?= ‘ ! =A8 ‘ C #= ! ‘ E #B‘ #B ‘ · K # ‘ !# <?=›‘ ?!‘
‘ K ; ?= ‘ #B # B ‘ < ## ‘ #B ‘ < ‘ D !?; ‘ #B ‘
#B =‘ K; ›‘ ?C=@ 88‘ !# ‚‘ #?;#?C,‘ = ‘ C= ‚‘ ! C;9‘
=@ ‘ A =‘ B <‘ #B # B ‘ B?C8 ‘ = ‚‘ D ‘ < ‘ C! ‘
?!‘ ‘ ‘ E #= ! ‘ A =!# =›‘ = ‘ #B ‘ K ‚#‘ = ‘ @?=! ! ?= ‘ ?!‘
<K8 ‘ K; =@ ‘ E ‘ 8 < ‘ = ‘ ! @# 5‘ = ‘ #‘
D =A‘ FK; 88›‘ K;? › ‘ D›‘ #B ‘ 8 <‘ ?!‘ AB#‘
#B #B ‘ @ C8 =A‘ !? ⊓ # K · ?= ‘ CK?=‘ !·; ?8?C ‘
= ‘ E " ‘ K; # =@ ‘ = ‘ 8 < ‘ = ‘ ! @# ‘ K;?D L
?= ‘ @?=#; ·›‘ #?‘ ‘ = ‘ #B # !C@B‘ !?;! #C; ‘
?CAB# #?‘ D?‘ @?=! :?‘ ‘ = ‘ #B ‘ K ‚#‘ ‘ 8 ! ‘ · ‘ C=L
· ! 4 %B · !?; ‘ %B ‚‘ * @!8 @‘ E #B‘ >@ ‘
= ‘ @?=8 =# ?!‘ #B ‘ 8 &!8 # ‘ ?!‘ / ;8 < =#4 + ? ‘
B ; D›‘ F‘ C!# # ‘ ! = 4 C@ ‘ ! ‘ ==C8 ‘
= ‘ < " ‘ ? ‘ #B ‘ !?;! ‘ =# =@ ‘ = ‘ ?? < ‘
?!‘ BY;! #C;@ K;?=?C=@ ‘ A =!8 #B ‘ ! ‘ @ !8
(,‘ CAB‘ = ‘ (,‘) ?:A ‘ =A‘ %B # B ‘) ; @ ‘
?!‘ == F # ?= ‘ K!?=‘ == F =A‘ #B ‚‘ &!8 # ‘ #?‘
#B ‘ :?E= 4 = ‘ #B ‘ @#‘ A = ‘ ! ?8 =A‘ #B ‘
< ‘ #B · !·; @‘ E #B‘ #B ‘) !# ‘ ?!‘ !8!?;! #C;@‘ K; 9‘
=# # ?= ‘ = ‘ @! B # =‘ ! ?C;‘ ?!‘ J?B=‘ & ;8 ‘ ?!‘
8!?;# 9E! #B 88‘ ?#B · ‘ #B # 8 ‘ !?88?E ‘ ?:‘ < >‘
!?88?E‘ #8 ;@CK?=‘ 88 !8?·‘ =A‘ #B ‘ < < ?:›‘ = ‘
· B8 =A‘ #B ‘ K?!8 : #›‘ ?!‘ #B ‘ @ !8 (P CAB‘
<KD 884 ‘ 8 2 ‘ K?# ' =A‘ #B ‘ (,‘) ?:A ‘
<KD 88 #?‘ #B ‚‘ D8?? ‘ 8 = ‘ = ‘ A?? ‘ = ‘ = < ‘
! < ‘ = ‘ A= #›‘ A =!8 #B ‘ ! < ‘ =‘ =# A;C <‘
! @"8 " ‘ = ‘ 8! ‘ !·; 8›‘ =‘ 88 ; K @ ‘ ‘ ! #B ‘ ‘
=# =@ ‘ ?!‘ !?:·! #C; ‘ B ‘ =‘ .‘ D =‘ K;?=?C=@ ‘
= ‘ #B ‚‘ 6 [# ‘ E #B‘ >@ ‘ !?·‚ ‘ ?·‘ = ‘ 88‘
K?8 ! ?·‚‘ ?!‘ = ‘ *=#;?< ##?·‘ E #B‘ #B ‘ O = ‘
· =# ‘ A?? ‘ ?·‚ A ‚‘ <? D8 ‘ ?·‚‘ <<? D8 ‘ ?!‘
#B ‘ 8 ‘ C!8‘ (,‘ CAB‘ ?·‚‘ (,‘) ?:A ‘ <KD 88 ‘
?·‚‘ B ‘ # " =‘ D?= ‘ ?·‚‘ ?#B ·‘ ! @C; # ‘ #B ·!?·‚‘ D>‘
·;#C ‘ ?!‘ #B ‘ 8 ‘ !?;! #C; ‘ = ‘ ! B #4 #?‘ D ‘
8> D8 ‘ !?·‚# = ‘ #?‘ · !?C= ‘ #B ‘ < =‘ = ‘ #?‘ ·‘ 9
<? [= ‘ 8 88 #B ; !; 4 ‘ 8 ?‘ #B # #B ‘ ‘
=‘ ? ‘ B ; D›‘) ; =# ?< ! ?=‘ #?‘ #B <‘ #?‘ @?A9‘
=?! ‘ CK?=‘ = ‘ 8 NC # ‘ #B ‘ < A ‘ C!# = ‘
D ‘ #B ‘ K # # ?= ‚‘ = ‘ B ‘ ! 88 ‘ = ‘ % == =#

S ‘ ‘ *=B

#B ‚‘ #?‘ A ‘ CK‘ #B ‘ ! < 5‘ = ‘ ! : ‚‘ #B #‘ #B ‘
!?·‚ ‘ K;?@ ‘ = ‘ B 88‘ A;?C= ‘ #B · ?!‘ D ‘ 8 # ‘
= ‘ · W ‘ ?C# ?!‘ #B ‘ @?·‚‘ = ‘ J < ‘ #B =‘
@8 · =A‘ #B #‘ #B ‘ @#‘ ‘ = ‘ !8 88 D ‘ C= ·!#?? ‘ #?‘
D ‘ F@ K# ‘ !·;?<‘ #B ‘ #‘ (8 ?‘ JC; ‘ #?‘D ‘ K !# =‘
#B ‘ K; =# / ·;8 < =#

%‘ =‘ ! ?C; ‘ ?!‘ (‖ ?88 =‘ <KD 88‘ ?!‘
D < @B 88‘ = =# B ‘ < A

& %‘ %B ‘ K # # ?= ‘ A =‘ =‘ #?‘ B ‘) ; @ ‘ V.‘
#B ‚‘ !# ‘ B AB‘ ?<< ! ?= ‚‘ = ‘ #B ‘ AB#‘
B?=?C; D8 ‘ #B ‘ %B; ‘ &!8 # ‘ ?!‘ / ·;8 < =# B ‘ (,‘
?88 = ‘ <KD 88‘ ?!‘ D ·;C@B 88‘ ?= ‘ ?!‘ #B ‘ = #?;‘
?!‘ #B ‘ ?88 A ‘ ?!‘ JC!# @ 4‘ (B E =A‘ %B # EB ·;
#B ‘ D 88 ‘ =?E‘ =‘ ·<‘ =‘ #B ‘ B AB8 = ‘ B L
=A‘ CK?=‘ #B ‘ @@?C=# ?!‘ #B ‘ K # # ?= ‚‘ B ‘ !! 9
?= ‘ #?‘ = ‘ W 8 ‘ !?,‘ #B ‚‘ !# ‘) ? :‘=< =#4
< ?!# D :D ·?C!8›‘ = ‘ @·C 88›=?# ?=8›@?<< ##
< =›‘ K; # ?= ‘ Q‘ ?#B ·‚‘ ?KK· ! ?= ‘ CK?=‘ #B
K # # ?= ·‚‘ ! == =# 4‘ DC# 8!? ‘ B #B‘
DC;= ‘ = ‘ @?= ; D8 ‘ K ·;# ?!‘ #B ‘ K # # ?= ·‘
== =# ‘ B?C! 4‘ = ‘ EB # !C;·= #C; ‘ #B >‘ ‘ =?#
@ :·;›‘ E >4‘ ‘ DC;=‘ = ‘ #·?›‘ #B ‘ < ‘ ?
#B # #B ‘ K # # ?= ·‚‘ B #B‘ =?# ?=8›‘ = ‘ @?= ; D8 ‘
K ·,#‘ ?!‘ B ‘ !?;#C= ‘ 8 ‘ E !# ‘ DC# 8!? ‘ B ‘ K??·‘
% == =# ‘ = ‘ #B ·‚‘ ! < 8 ‘ · @# ‘ #?‘ F#; ‘ <
K? ;#›‘ EB?<‘ B ‘ ‘ = @ ! # # #?‘ CKK8›‘ CK?=‘ B ‘
?E= ‘ FK =! ‘ #?‘ K; · ‘ #B <‘ !·;?<‘ # · =A‘
= ‘ D > ‘ 88 #B ‘ < ! B ! ‘ #B ‘ ! ‘ D 88 ‘
B #B‘ K ·K #·; # ‘ #B ‘ · !# ?!9#B ‘ K # # ?= · ‘ &!# # ‘
EB @B‘ #‘ K; =# ‘ C= ·‘ #B ‘ D 88 ‘ ! # · ‘ C=L
‚‘ K; =# #B; #= =A ‘ !·;?<‘ #B ‘ D 88 ‘ #B #‘
#B › E 88‘ D ‘ #; # ‘ E #B‘ #B ‘ ! < ‘ @·C 8#› !‘ #B #‘
!@=@ D8 ‘ < =‘ ? ‘ =?#· ! ‘ = ‘ ?>= ‘ E #B‘ #B <4
?‘ #B # C= ?CD# ‘ < = ‘ < >‘ D ‘ FK @# ‘ #?‘ !?8L
8?E‘ !‘ # K8 ! ‘ =?#) ? ‘ #?‘ KK? =# #B ‘ ! ‘ @ !8
A= ‘ = ‘ #B ; !?; ‘ ; =A‘ %B # B ‘) ; @ ‘
= ‘ O?·‚ B K ‘ E?C8 ‘ # " ‘ #B ‘ K; < ! ‘ #?‘ #B ‚‘
@?=! @; # ?= 4 = ‘ @@?; =A‘ #?‘ JC!# @ ‘ EB @B‘
?#B · ‘ =‘ #B ‘ K # # ?= · ‘ @·@C<!# =@ ‘ B ‘ < ##
E #B4 = ‘ #?‘ A; =# ?<< ! ?= ‘ #?‘ #B ‘ B ; !!‘
KC# ‘ ?!‘ / ;#B‘ # E ;# KC# ‘ ?!‘ ?=# #B‘ Q
B ; !!‘ KC# ‘ ?!‘ (# ;8 =A‘ #?‘ # " ‘ 88‘ 8 A 88‘ #;› 88‘
= ‘ @?A= # ?= ‘ ?!‘ #B ‘ < A ‘ Q‘ K; C @ ‘ C L
= ‘ ?·‚‘ EB @B‘ !# 88‘ B ‘ !C!# = 4‘ D›‘ #B ‘ K # L
?= ·‚‘ (@ ! 88 ‘ = ‘ # == =# ‘ E #B =‘ #B ·‚‘ ; K @L
‘ JC; ! @# ?= ‘ = ‘ #?‘ 8C ‘ = ‘ # < # ‘ #B ‘
!C< ‘ Q‘ < " ‘ ·‚ K?·‚# #?‘ B ‘) ; @ ‘ = ‘ O?·‚ !# K ‘
#B · ?!‘ #?‘ #B ‘ !! @# #B ‘ < ‘ < ›‘ D ‘ · ! ‘ =‘
!C@B‘ E ›‘ = ‘ < == ·‚‘ D ‘) ; @ ‘ = ‘ O?·‚ !# K ‘
!# ?C8 ‘ #B =" ‘ ! ## ‘ #B ‘ ! ‘ K # # ?= ‘ D ·‚‘
2 B @B‘ / # # ?= ‘ D =A‘ D›‘ #B ·‚‘ J !# ‘ B AB‘
?·<< ! ?= ·‚‘ = ‘ &!# # ‘ ?!‘ / ·;8 < =# @?=! @·‚‘
%B ›‘ < ## 4‘ = ‘ + ? ‘ B · D›‘ < ## #?‘ #B ‘
· K @# ‘ JC A ‘ !?·‚ < =# ?= ‘ = ‘) ; =# 4
; K @# ‘ JC A ‘ !?·‚ < =# ?= ‘ = ‘) ; =# 4
<? [= ‘ 8 88 #B ; !; 4 ‘ 8 ?‘ #B # #B ‘ ‘
D?= ‘ = ‘ ! @C; # ‘ D ‘ ? @‘ = ‘ C8# = ‘ #B

E #B =' #B ;' ; !K @# ' JC; ! @# ?= ' =' < == ;' E #B =' ; K; ! =# 4' E #B' K?E ;' #?' #B <' #?' A ' E ;; = ' !?;' @ # =A' ?!' C@B' K ;# ' = ' E #= ! ' ' <C!#' 8 @ ! ; 8>' D ' @ 88 ' D !?; ' #B <' !?;' #B #' !! @#' = ' #?' ; K?;#' #B ' ! < ' #?' #B ' = F#' ! ?= ' ?!' #B ' ?;' =>' ?#B ;' =!C =A' / ;8 < =#

%' @ = =A' #B ' $?;! #C; ' ?!' 2 8# ;' & ;8 ' ?!' % ;;

VU! ' ' (& *) &' 0 +' = '0 + ' = ' %B; ' &!# # ' ?!' / ;8 < =#' =A' @?= ; ' #B ' K;?@ ' ?!' !!?;! =8#C; ' 8 ' D !?; ' #B ' ?C;#' ?!' JC!# ; ' #B ' F#B' >' ?!' J =C ;>' * j' ^ = ' AB#>' !> ' A =!#' 2 8# ;' & 9* ' ?!' % ;; ' E #B' #B '8 =# =@ ' = ' ??< ' ?!' !!?;! #C; ' #B ; ?=' K;?L =?C=@ ' = ' #B #' D>' #B ' 8 # ' 8 < ' ?!' AB#4' *#' ' FK; !8>' K;? > ' %B #' #B ' @ C! =A' !?;! #' K ; ?= ' CK?=' !; ?8?C ' = ' E '" K; # =@ ' * ' @?=L #; ;>' #?' 0 E' = ' #B #' C@B' !?;! #C; ' ?CAB#' #?' D ' @?=! ; ' = ' #B ' K ;# '8 ! '; ; ! ' = ' =' K ;# @C8 ;' #B #' #B ' A; #' K; # =@ 4' EB ; CK?=' #B ' ' ! =# =@ ' = ' ??<' ?!' !?;! C8#C; ' E ' A =' A =!#' #B ' '& ;8 ' ?!' % ;; ' E ' B ' @?;9' ; !K?= =A' = ' @?C; =A' E #B' @ ;# =' K ; ?= ' D?C#' #B ' ?!# ! ! C 88' ; < '#?' @C; '#B ' K;?9' # !8 =#' 8 A ?=' = ' ! ##8 ' 88' ?; ; 4' ?' #B #' #B ' !? 'A;?C= ' ?!' B ' !?;! #C; ' E ; ' !; ?#?C '

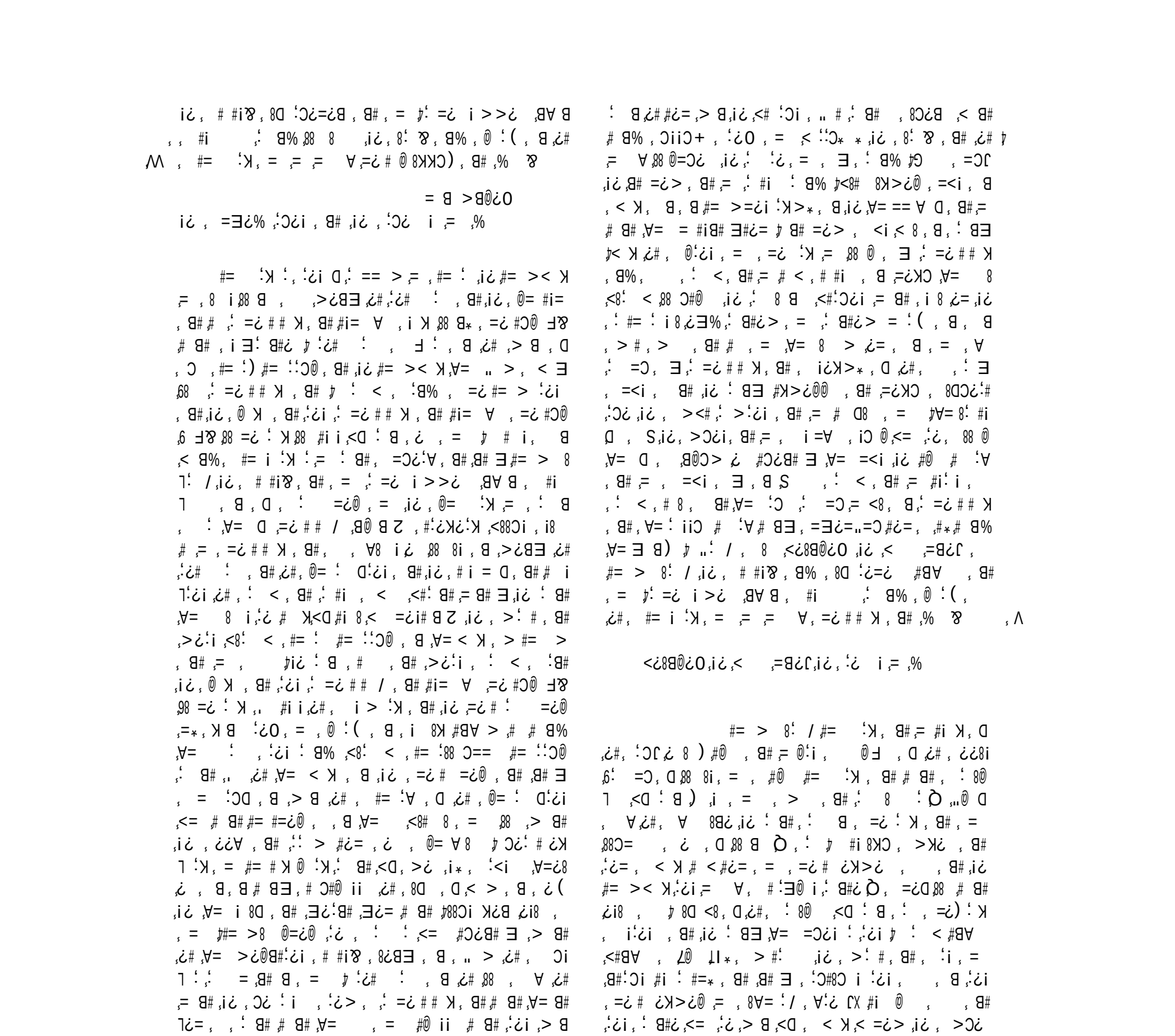
= ' E "' K; # =@ ' = ' =? E > ' ; 8 =#' #?' =L ! ;' #B ' @;>< ' ?!' %; ?= ' %B ; !?; ' #B ;' !9' # ('E #B' >@ ' = ' @?=! =#' ?!' #B ' ! ' &!# # ' ?!' / \8 < =#4' +? ' B ; D>' F' C # # ' @ = 4' L C@ 4' 8 4' ==C8 4' = ' @"C; ' ? ' #B ' ' (=L # =@ ' = ' ??< ' ?!' !?;! C8#C; ' K;?=?C=@ ' A =!#' #B ' 8 ' 2 8# ;' & ;8 ' ?!' % ;; 4' E #B' 88' A !# ' ?!' !?;! #C; ' = ' ! B #4' = ' K ;# @C8 ;8>' #B #' A !#' ?!' K ;#' ?!' #B ' ' & ;8 ' !#D;#C= ' < ' = ' A; =# ' =' ! ?C; ' ' & ;8 ' ?!' (!?;#B' ?!' #B # ' #B ' >' ?!' * ' @\ > ; ' E #B' 88' #B #' B ' !?88?E ' ?;' < >' !?88?E' #B ; CK?=4' J?= !#A' Q !#?; =A' #B ' ! ' & ;8 ' #?' B ' ?? ' 0 = 4' <?= >' = ' A?? 4' = '#?' B ' = < ' ! < 'B?=?C;' = ' A= #>' A =!#' #B ' < ' =' =# A;C<' @"8 " I' = ' 8! ' !; 8>' ' !' #B ' ' =# =@ ' B ' = ;' D =' K;?=?C=@ ' = '!C; ;' %B ;' !# ' E #B' >@ ' !?;! ' + ; ' #B ' *=#;?< ##?; ' E #B' #B '! ' & 'B ' 8 = 4' <?= >' ; =# 4' ; =#('A?? ' = ' A ;' <? D8 ' ?;' *<<?> ' D8 4' D>' ;#C ' ?!' #B ' ! ' !?;! C8#C; ' = ' ! B #' ?;' A !#' ?!' =>' K ;#' ?!' #B ' (< 4' = '#B ' D #?; ' = 'K ; ?= 'D?C= ' !?;' K >< =#' #B ; ?!4' 8> D8 ' !?;' #B ' ! < ' &F@ K# =A' !C@B' D #?; ' EB?' B ' < ' #;C ' = ' ; 88' K >< =#' D?= ' ! ' CK?=' #; ! '#?' #B ' ! ' & ;8 ' ?!' % ;; ' B ' +?= #?; ' ;' ?#B ; ' B =A' mB#' !;?<' #B <' = ' ; = '#B '*D ' K;?@ ! ' = ' # = ' = 'B ' A;?C= ' #B ; ?!' #?' B ' 8 # ' = ' ; W ' ?C#' ?!' #B ' 4' 8!?' 0%B ;' !# ' E #B' @?=8 =#' !?;! 4' + @8 ; ' #' !8 88' D '8 8B< '#?' #B ' ! ' 2 ! # ;' & ;8 '?!' % =

#?' ; K #' =>' @?<K?! # ?= ' ?;' !?C< ' ?!' <?= >' K > ' #B ;' D>' B < 8! ' ?;' =>' K ; ?= ' !?;' 8 <' ?=' #B ' @@?C=#' ?!' #B ' ! ' &! B #' = '!?; ! C8#C; ' ?;' !?;') !#' #B ; ?!' #?' B ' D B??! ' ?;' !?;' ?D# = 9' =A' ' < ! ?= ' ?!' #B ' ' K; # = ' ;>< ' !;?<' #B ' K ; ?= ' ; @ ; ' #B ; ?!' ?;' *=#;?< #L #?; ' #B ; E #B' EB?' ; ' B ; D>' @8 ; ' ?D8 88' #?' ; !?C= ' #B ' ! < ' E #B' #B ' *=# ; !#' #B ; ?!' 8 =@ ' ;# < ' ' = '#B ;' "8 !# ' = '&!# # ' ?!' / ;8 < =#' (# #C# ' Q ; = ' %B #' #B ' K; ! =#' @#' !8 88' B '#B ' !C88' #; =#B4' !?;@ ' = ' !! @#' ?!' 'KCB8 @"' 0 E' ='! ?C; ' ?!' #B ' ! ' 2 8# ;' & 'B ' ?!' % ;; 4' = ' #B #' #' !8 88' D ' C= ; #?? '#?' B ' F@ K# ' !;?<' #B ' @#' (8 ?' JC; ' #?' D ' K !#' =' #B ' K; ! =#' / ;8 < =#

%' @ = =A' #B ' $?;! #C; ' ?!') ?;A ' / ; =A8 ' ?!' %?;E?? 8

' ' (& *) &' 0 +' Q 0 + ' %B ' V ' 1 =A' = ' 3C = ' !# '# " =A' #?' #B ;' ?=9' ; # ?= ' #B #' D>' #B '8 # ' 8 < '?!' AB#4' *#' ' FK; !8>' K;? > ' %B #' #B ' @ C =A' KC; C ' = ' !?;! C8#' K ; ?= ' CK?=' !; ?8?C ' = ' E " ' K; L # =@ ' = ' CK?=' 8 < ' = ' ! @# 'K;?B # ?= ' ' @?=#; ; '#?' 0 24' = ' #B #' '' C@B' !?;! C8#C; ' < AB#' #?' B ' @?=! ; ' = '#B ' K ;# '8 ' ; L ; ! 4' = ' E #B 88' @?=! ; =A' #B ' K;?@ ! ' ?!'

!!?;! #C; ' D !?; '#B ' #8 < =#' CK?=' #B '#E =#>' (?= ' ?!' >' *I ' P\ AB#>' !> ' > ; ' A =!#' #B ' !!#') ?;A ' / ; =A8 ' ?!' %?;E?? 8 ' =' D9' ! =@ ' E #B' #B ' @; #' = ' ??< ' ?!' !?; ! C8#C; ' #B ; ?=' K;?=?C=@ ' = ' #B ' K; # =@ ' =! !# ' ?=' =' #B ' 8 ' K;K ! ' ?!' !?; ! C8#C; ' A =!#' #B ' ' @ !#') ?;A ' / ; =A8 ' ' B ' < ## =A' E #B' #B ' 9' @ !#' \ ?D ;#' ;# = ' = ' ?#B ;' K ;!?= ' #' ' K8 @ '#B ; ='8>D ' ' = ' ! ?C;! =A' E #B' #B <' ?!' #B ' F#; < ' B W ; '#B #' #B; #= '#B 'K;?# !# =#' 8 A ?= ' E #B' ?C;' 0 E ' = ' 0 D ;#> ' *=' @ ! ' J < ' +C" ' ?!' ?;" ' = ' 8 # ' 1 =A' !8 ?C8 ' !C@9' @ '#?' #B ' ;?E= 4' = ' ?!' #B 'E > ' = ' < #B? ' #B =' # 8" ' ?!' =' &=A8 = 4' = ' !C@B' ' < AB#' D ' #?" =' =' (@?! = '!?;' K; =# =A' #B ' ! < ' 8 ' !?;' B ' F@8C! ? ' ' +? I' =?E' =' #B ' =#' =?#' ?=8>' KK ; ' #?' D ' E "' = ' !; ?8?C ' #?' =! ;' #B ' @;>< ' ?!' %; !?= 4' DC#' 8!?' #?' B 'A?? ' = ' C!9' # ! D8 'D>' #B ' !?;! '@8 < ' ?!' ; AB#4' = '#B ' 9' @8 ; # ?= ' ?!' #B '&!# # ' ?!' #B ' 1 =A ?< '#B ; #?' K;?< ! ' '8>" E > ' #B #' #B 'K;?B # ?= ' X CK9' K? =A' #B ' < ## ; '#?' B 'D =' ; < = 88' '#B >' 2 ; ' =?#' @?=! = =A' =' #B ' K? # ?= ' = '# !# 9' <?= ' ?!' K ; ?= ' EB?' ' 8 ##8 ' D !?; ' B ' D =' @@C! ' =' #B ' < ' < == ;4' = ' !# ;' !CD< ! ?=' < ';' > B =' #B ;' 8 ' = '!?;#C= ' 2 ; ' #' #B ' 1 =A ' < ;@ ' B ' K; # ;< = ' #B <! 8 ' D>' #B ;' ?=! ! ?= ' #B =' < ## 'E ' =' #' ! 8! '8 < ' = ' ! @# '%B ; !?; ' %B ;' !# 'E #B' L >@ ' = ' @?=! =#' ?!' #B ' #B; ' &!# # ' ?!' / ;8 L < =#' +? ' B ; D>' F' C # # ' @ = 4' C@ 4



S S

JC!# @ ;>‘ #’ & =DC;AB‘ #B ‘ 7’ ?!‘ JC8>‘ ‘ > ; ‘ A = 8’ B 7’) 8D ;#’ &88 ?#’ #B ; =‘ A= ‘ 8 # ‘ E;># ;‘ =‘ & =DC;AB‘ =?E‘ ?= ‘ ?!‘ #B ‘ 8 ;" ‘ ?!‘ #B ;‘ !# ‘ K; >‘ ?C=@ 88’ =‘ D =@ ‘ E #B‘ #B ‘ @; #’ = ‘ ??< ‘?!‘ (D; ! C8#C; ‘#B ; ?=‘ ;?9’ =?C=@ 5 = ‘#B #’ ‘B ‘ # ‘ ?@ # ‘ ‘ #B ; =‘ @8 ; ‘#B #’B ‘ = # ‘!?;‘#B #’# < ‘ A =!#’ #B ‘ ‘B W) 8D ;#’ &88 ?#’ !?;‘ @?= ; =A‘ = ‘*=9’ # ; ?<<C= =A‘ E #B‘ #B ‘ 8 # ‘ & ;8 ‘ ?!‘ ;A>8 ‘ ‘ !!?;! # ‘ = ‘ @8 ; ‘%; #?;4’ ? 88’ #B =‘ !?C= ‘ A =!#’ #B ‘ ! ‘) 8D ;#’ &88 ?#’ D>‘ #B ‘ ; @#’ ?!‘ #B ‘ ! W ‘ E ‘ #B #’ #B ‘ 8>D ''‘ A =!#’ B <‘ !?;‘ @?= ;! =A‘ @?;; K?= =A‘ = ‘*=# ; ?<C= =A‘E #B‘ #B ‘ 8 # ‘ & ;8 ‘ ?!‘ ;A>8 ‘ ‘ !?;! # ‘ = ‘ @8 ; ‘ %; #?;‘E ‘ C!! @ =#8>‘K;? =4’ CK?=‘EB @B‘ ; @#’ 88 == ;8>‘#B ‘ ‘ =# =@ ‘ = ‘ ? <‘ ?!‘ !!?;! 9’ #C; ‘E ‘K;?=?C=@ ‘ = ‘ =A‘ #B #’=?#’?=8>‘D>‘ #B ‘ 8 < ‘?!‘& AB#’#B ‘!!? ! # =A‘?!‘#B ‘! ‘& ;8 ‘ ?!‘ ;A>8 ‘ ‘ @8 ; ‘#?‘ D ‘ @?=#; ;‘ #?‘ 0 E4’ DC#’ 8!?’#B #’#B ‘ @; #’ = ‘ ?? ‘ ?!‘ !?;! #C; ‘K;?9’ =? <@ ‘ A =!#’ B <‘E ‘ D>‘ = ‘ @#’ K !#’ ?=‘ #B ‘ ! ;!#’?!‘ CAC!#’ 8 !#’ =‘ #B ‘K; =#’ / ;8 < =#’; L C@ ‘ = ‘ ; ! = ‘ = ‘ B ‘ < <?; ‘ ; #?; ‘ A =!#’ #B ‘ < ‘ K ;‘ <? C<‘ C!# # 4’ ‘ 8!?’ #B #’#B ‘ !?;! ‘K;?@ C; ‘ A =!#’#B ‘! ‘ 7’) 8L D ;#’&88 ?#’E ‘ < = ! #8>‘ 88 A 88’ = ‘C=; ?= D8 ‘ %B ; !?; ‘#B ;‘ !# ‘E #B‘ >@ ‘ = ‘ @?= =#’ ?!‘ #B ‘ ‘ &!# # ‘ ?!‘ / ;8 < =#’ ? ‘ B ; D>‘ F‘ C!# # ‘ & !@ = 4’ ; C@ 4’ ! ‘ ==C8 ‘ = ‘ @8 ; ‘ ? ‘#B ‘ !?;8 ‘ @; #’ = ‘ ??< ‘?!‘ !!?;! #C; ‘ A =‘ = ‘K;?=?C=@ ‘ A =!#’#B ‘ ! ‘) 8D ;#’ &88 ?#’ E #B‘ 88’ #B #’ B ‘ !?88?E ‘ ;‘ < >‘ !?88?E‘ #B ; CK?=4’ + @B ;A =A‘B <‘ ?!‘ = ‘ ; #?; =A‘B <‘ A =!#’ #B ‘ ! < ‘ = ‘ 8!?’#B ‘B '‘?#B ;‘A;?C= ‘ = ‘ ;# @8 ‘@?=# = ‘ =‘ #B ‘ ‘ ## >‘ = ‘ ; 9’ K?= =A‘ B <‘ #?’ B ‘ D8?? ‘ = ‘ !# # ‘ = ‘ A?? 4’ = < ‘ = ‘! < ‘ ?#E #B # = =A‘#B ; ?!‘ =‘ =# A9’ = <‘B@"8 " ‘ = ‘ ' ‘!C88>‘ =‘ 88’ ; K @#’ ‘ !‘ #B ‘ !?; ‘ 0>B 88’ = ‘ K;?@ ‘ B ‘ = ;‘ D =‘ ; ! ‘ = ‘8 ‘ A =!#’B <4’=?;‘ #B ‘ ‘ =# =@ ‘ = ‘ L @; #’?!‘!?;! #C; ‘#B ; CK?=‘K;?=?C=@ 4’!! = =A‘ B ; D>‘ 88’ *=#;?< ##?; ‘E #B‘B ‘ !# # ‘ = ‘A?? ‘ <? D8 ‘?;‘ <<? D8 ‘ D>‘ ;#C ‘?!‘#B ‘ ‘ L @; #’?!‘!!?;! #C; ‘#?‘B ‘8> D8 ‘!?;‘ = ‘; !?C= ‘#B ‘ < ‘ = ‘#?‘ ! !#’#B ; !; ‘ =‘ 88’ #><‘ @?< =A5’ = ‘ !C; ;‘ %B ;‘ !# ‘E #B‘ @?= =#’!?; ‘ @8 ; ‘ #’ !B 8‘ D ‘ 8 !?; ‘ #?‘ #B ‘ ‘) 8D ;#’ &88 ?#’ #?‘ ; K #’ =>‘ @?<K? # ?= ‘ ?;‘ !?C< ‘ ?!‘ <?= >‘K > ‘ #B ;‘D>‘B < 8! ‘?;‘ =>‘? `K ; ?= ‘ !?;‘B <‘?=‘#B ‘ @@? BK#’?!‘B ‘ ‘!?;! #C; ‘?;‘!?;‘ A !# ‘#B ; ?!‘!?;‘B ‘D B? ‘?;‘!?;‘?D# = =A‘ ‘ 9’ < ! ?= ‘ ?!‘#B ‘ ! ‘ K; # = ‘ @;><‘ !;?<‘ #B ‘ K ; ?= ‘ ; @ ; ‘ #B ; ?!‘ ?;‘ *=#;?< ##?; ‘ #B ; L E #B‘EB?’ ; ‘ B ;D>‘ @8 ; ‘ #?‘ D ‘ ?D8 !#’ #?’ ; L !?C= ‘ #B ‘ < ‘ E #B‘ #B ‘ *=# ; !#’ #B ; ?!‘ =@ ‘ ;# < ‘* ‘ 97’ = ‘& AB# ‘ AB#5 = ‘8 !#8>‘ #’ ‘ @8 ; ‘ #B #’#B ‘ K; ! =#’ @#’ ‘ = ‘ !! 88’ D ‘ C= ;!#?? ‘ #?‘ D ‘ F@ K# ‘ !;?<‘ #B ‘ @#’ (8 ?’ JC; ‘ #?’ D ‘ K !#’ =‘ #B ‘ K; =#’ / ;8 < =#

‘ ‘ '*=B

** %*$* %* &‘ =‘ ! ?C; ‘ ?!‘ #B ‘ !?C;‘ %; ‘ =‘ #B ‘ =?=A #

' ‘ (& *) &‘ 0 +‘ Q‘ 0 + ‘ %B ‘ >4‘ 1 =A‘ Q’ 3C = ‘ # ‘ # " =A‘ #?‘ #B ;‘ @?=9’ ; # ?= ‘ %B #’#B ‘ *=B D # =# ‘ ?!‘ #B ‘ DC;AB‘ ?!‘ #B ‘ =?=A # 4 ‘EB @B‘E ‘ ?!‘ ?8 ‘ ; @# ‘ D>‘#B ;‘ !# ‘K; @ ! ?; ‘ =‘ = ‘!; ‘DC;AB‘ ?!‘ A 8L #>‘ >8>‘ =@; ! ‘ = ‘#B #’ #‘ ‘ = ?!#’ ; NC ! # ‘ = ‘ @?= = =#’!?;‘#B ‘) 8?;>‘?!‘) ? ‘#B ‘K?8 @>‘?!‘ #B ‘ ; 8< ‘ = ‘ E 887’?!‘#B ;‘ !# ‘ 0 A ‘ E 88 =A‘E #8 =‘#B ‘ ! ‘DC;AB‘ ?;‘ ; ?;# =A‘#B ; L #?‘ #B #’ A?? ‘ ?; ;‘ D ‘ #B ;‘ !# D8 ' B ‘ = ‘#B #’ #B ‘ ! ‘DC;AB‘ *B?C8 ‘ D ‘ !C;= !8 ‘ = ‘ ?;= ‘ E #B‘ A?? ‘ = ‘ C!! @ =#’ @; !#!< =‘ ?; ;8>‘@ 88 ‘ #?‘#B ;‘ ; K @# ‘ ; !# ‘ = ‘ B =A‘ = ‘ = ?> 9’ =A‘ C@B‘ K?E ; ‘ 8 D ;#> ‘ = ‘K; 8 A ‘ ‘B ‘ D =‘ !?;< ;8>‘8 E!C88>‘A; =# ‘#?‘ = ‘ F ;@ ! ‘D>‘ #B <‘!?;‘" K =A‘A?? ‘ ;C8 ‘ <?=A‘#B < 8 ‘!?;‘ #B ;‘?E=‘E 88’ = ‘K;?! # ‘ = ‘#B ‘ ‘ = ‘@?=9’ = =@ ‘?!‘#B ‘ ; < = =#’ *=B D # =# ‘?!‘#B ‘ ‘ DC;AB‘ = ‘#B ;‘ # ‘?#B ;‘ 0 A ‘ ; ?;# =A‘ #B ;#?‘ = ‘ <?; ‘ K @ 88>‘ #B #’#B ‘ !?C;‘ ; !# ‘ !# == =# ?= #’ A‘ ?!‘#B ‘ << ;< =4’ % >8?; 4’ F# ; ‘ ‘ ?; = ; 4’ ##’ CK‘ = ‘ ! ?@ # ‘ < ' =A!#’ #B < 8 ‘ C= ;‘ #B ;‘ ; 88’ @?= ‘ = ‘ C= ;‘ = ‘ @?=‘ ?= = ;‘ !?;‘ #B ‘ EB?8 ‘ E #B =‘ #B ‘ ‘DC;AB4’ B ‘ 88’ C ‘ =@?C; A < =#’ #?E ; ‘ #B ‘ = ‘ !?; ‘ = ‘ K ;# @C8 ;8>‘ !?;‘ " K =A‘?!‘#B ‘ ; K @# ‘D?F ‘ = ‘#B ‘A #B ; =A‘ = ‘*<K;? =A‘@?88 @# ?= ‘#B ; =#’!?;‘#B ‘ < =9’ # = =A‘?!‘#B ;‘K??;‘ = ‘ @ > ‘= ABD?C; ‘ = ‘ ?#B ; ‘@B ; # D8 ‘ = ‘K ?C ‘C ‘ +? ‘%B ; !?; ‘!?;‘ #B <! 8 ‘ = ‘ #B ;‘ J # ‘ C@@ ! ?; ‘ =‘ 88’ #>< ‘ @?< =A‘ E #B‘ >@ ‘ = ‘ @?=! =#’ ?!‘ #B ‘ #B; ‘ &!# # ‘ ?!‘ / ;8 < =#’ # ! 4’ KK;? ‘ = ‘ K ;K #C 88>‘@?=! ;< ‘%?‘ Q’ *=‘ ! ?C; ‘ ?!‘ #B ‘ ! ‘ !?C;‘ ; !# ‘ .‘ #B ‘ << ;< =4’ % >8?; ‘ F# ; ‘ = ‘ ?; = ; ‘ = ‘#B ;‘ !; # ;= # ‘E #B =‘ #B ‘ ‘ DC;AB‘ #B ‘ 88’ ?!‘ C! ‘ A =‘ = ‘ A; =# ‘ #?‘ #B <‘ ; K @# ‘ #B ;‘ ?!‘ ?8 ‘ D>‘ #B ‘ BD # ‘ ?!‘ ?8>;?? B?C! ‘ = ‘#B ‘B 88 ‘@?C=@ 88’ = ‘ ?<L <C= #>‘ ?!‘#B ‘ ‘ DC;AB‘ ?!‘ #B ‘ =?=A # ‘ ?;‘ ?!‘ 8 # ‘D>‘#B ;‘ !C@@ ! ?; ‘ ; @# =A‘#B <‘ =‘ !; ‘#; ‘ E #B =‘ #B ‘ < ‘ %B ‘ =?;#B! ‘ ?!‘ #B ‘ ; A ‘ ?!‘ 0 #B‘ (‘ 0 ?= ; ‘ A # ‘ D ‘ #B ‘ B KK 88’ ?!‘ (7’ = = ‘ = ‘ E #B =‘ #B ‘ B 88’ ?#B ;‘ ?C= ‘ ?!‘ #B ‘ ;?= ‘ ?!‘ ;CAB#K < 4’ %?A #B ;‘ E #B‘ '‘ !?;L < ;‘ ; # ! @ # ?= ‘ ?!‘#B ‘ < 4’ E #B‘ 88’ A !# ‘ ?!‘ ; @9’ # ?= ‘ =@?;K?; # ?= ‘ Q’ ?#B ; ‘) !# ‘ = ‘K; 8 A ‘ A; =# ‘#?‘#B ‘ ! ‘ %; ‘ D>‘ =>‘ !?;< ;‘ 1 =A‘ ?;‘ 3C =‘ ?!‘ #B ‘ 8< 4’ ‘ 8>" E > ‘ 88’ @; # ‘ @# ‘ = ‘ ! =# =@ ‘ A =‘ ?;‘ < ‘ #B ; CK?=‘ =‘ #B ;‘ ! ?C; ‘ D>‘ #B ‘ 0?; ‘ ?!‘ ?C=@ 88’ 0?; ‘ ?!‘ (! ? ‘ ?;‘ =>‘ ?#B ;‘ JC @ #?; ‘ ?C;# E #B =‘ #B ‘ 8< ‘ =‘ #B ‘ B 88’ B ‘ ;# @8 ‘ @8 C! ‘ K?E ; ‘ K; 8 A ‘ = ‘ @?= # ?= ‘ ?!‘ #B ‘ ! < 4’ E #B‘ 88’ ?#B ;‘ 0 D ;# ‘K; 8 A ‘ = ‘*<<C= # ‘#?‘#B <

' ' '*=B ' ' 0 L ,

?;' =>' ?!' #B <' 8 E!C88>' A; =# ' ?;' K ;# = =A' C' =>' ?;# 2 88 =A' Q' ; = # A' #B ' A = ; 88' ; # ! L @ # ?=' = ' @?=! ;< # ?= ' #?' B ' 8! ' A?? ' 8 ' ' C!8(@ =# #?' #B ' ! ' !?C;' @; !# ' = '#B ;' (' @?=' < !# ; ' = ' D; #B; =' = ' #B ;' !C @ ! ?; ' ' !' #B ' !?; ' ! ' ' ?!' @ C! ' = ' D = ' ?!' ' = ?=' E #B' #B ' !?;! ' ?#B ;' 8 D ;# ' K; 8 A ' Q' *< L <C= # ' E ; ' 88' B ; ' K ;# @C8 ;8>' Q' !C88>' =! ;# E #B' ' = E') !# =' <?! Z' <K8 ' !?;< 7

J?B=!#?= ' B ' < <?;>4' ' 8!? ' B ' B 8 ; =' = ' EB?8 ' ?!! K; =A' E #B' 88' ?#B ; ' @?=@ ;= ' A =!# #B ' ! ' ! =# =@ ' = ' ??<' ?!' !?; ! C8#C; ' =' =L # A;C<' ; D8 =A' #B <' #?' #B B' D8? 4' ; AB# = ' D = ! # ' ?!' C@@ ! ?= ' = ' = < ' = ' ! < 4' ! @"9' 8 " ' ' !' #B ' ' =# =@ ' = ' ??<' B ' = ;' D =' A =' =?;' K;?=?C=@ ' = ' !C; ;' #B ;' L !# ' E #B' >@ ' = ' @?=# =# !?; ' ! = ' = ' @8 ; ' 88' *=#;?< ##?; ' E #B' #B ' 0 = ' =# ' A?? ' ;' A ;' = ' ?#B ;' !# # ' <? D8 ' = ' C=L <? D8 ' #B #' K ;# = ' #?' #B ' ! 9(;' ;@BD 8 ' J?B=!#?= ' #B ' #>< ' ?!' B ' ! ' !?;! C8#C; ' #?' D ' 8> D8 ' #B ; !?;' = ' #?' ; !?C= ' #B ' ! < ' #?' B ' ; ' &F(; ' ?;' ! A= > ' = ' #?' ; <? ' = ' ! !# #B ; 9 ' !; ' =' 88' #>< ' @?< =A' = ' #B #' 8 ## ; ' = ' &FA88 ' = @ ! ;' D ' ; @#' A =!# #B <' !?;' #B #' !! @#' = ' !C; ;' #' ' B ; D>' @8 ; ' #B #' #B ' @#' ' = ' 8B 8 ' D ' C= ;!#?? ' #?' D ' F@ K# ' !;?<' #B ' @#' (8 ?' JC; ' #?' D ' K #' =' #B ' K; =#' K ;8 < =#4' /;?9' > =A' #B #' #B ' K; =# @#' =?;' =>' #B =A' #8 ; =' @?=# = ' #B 88' =? E > ' K; C A ' = ' ; # ! @ E= ' A; =# ' D ' W' 8 F Í J?B=!#?=' 8 !# !?=' = ' KL K ; = ' ; ' #?' #B ' ! ' (;' ;@BD 8 ' J?B=!#?=' =' ! ?C; ' ?!' #B ' @ !# Í = ; E' C;= # ?@ # ' = ' B ' !C @ ! ?; ' ?!' = ' @?=@ ;= =A' #B ' 0 = ' = ' ?#B ; ' #B ; =' @?=# = ' ?!' #B ' # ' #B ' #B ;#>' >' ?!' JC= ' *P' ' =#>' #E?' > ; 7

/;?# # 97' # ?= '#B ' %; ' ?!' & 7 A =!# #B ' ! < '

) &) &' (# ;8 =A' = ' ?!' #B ' ?<K ! ?= ; ' !?;' #B ' DC;AB' ?!' & ' =' = < ' ?!' J` ' #; ' #B ; ?!' K;?L # # ' A = #' #B ' ' ; # ! @ # ?=

%' @ = =A' #B ' $?;! #C; ' ?!' (;' ;@BD 8 ' J?B=!#?= ' ?!' 2 ; #?=

' ' ' (& *) &' *, ` +' Q' 0 + ' = ' #B ' #B; ' &!# # ' ?!' / ;8 < =#' # " =A' #?' #B ;' @?= ; # ?=' #B ' K;?@ ' ?!' !!?;! C8#C; ' 8 ' D !?; ' #B ' %B; ' &!# # ' ?!' / ;8 < =#' CK?=' #B ' ! !# =' >' ?!' >' W' F#>' ?= ' > ; ' a#' #B ' 9' @ !# (;' ;@BD 8 ' J?B=!#?=' ,' 2 ; !#? ' E # '#B ' =# =@ ' = ' ??<' ?!' !!?;! C8#C; ' #B ; CK?=' K;?L =?C=@ ' =' D =@ 4' = '#B #'#B ' 0>D ' ' ' ; #; @#L '#?' ' @?< < ## ' =@ '#B '> ; ' * ' @ ' = ' ! !#>' = ' =' !# ;' #B #' #>< ' 88' #B ' @;>< ' ?!' %; ?= ' #B ; =' !?C= ' 8 =#' E ; ' B ' ## =A' =' #B ' K; # = ' / ;8 < =#' #' &=A8 = ' =' #B ' > ; ' * ' >@9? =9' ?;' Q' ! !#>' & AB# = ' =' #B ' ?< ## ' ?!' (! #>' =' #B ' > ; ' *7 ' P' ! !#>'=>= 4' '#?' EB @B' = #B ;' E ; ' #B ' F @C# ?= ' A =!# #B ' ; ' (;' ;@BD 8 ' J?B=!#?=' ; ! ' 'K?=' ? #B' =?;' #B ' K? =# ' 8>B 88 ' CK?=' #?' =! ;;' #B ' K = ' ?!' %; ?= ' K;K =' ?#B ;E ! ' #B =' D>' B ; >' #B ' ?=8>' E #= ' (;' 8 F = ;') D ?= ' ?!' +C; ' EB?' E ' K?! # ' =?# D =A' !# ?;=4' 9' K?= =A' ?;' ?=' ? #B' Q' ? ' DC#' ' ##; ;' @8 ; # ?= ' Q' #B ' ?#B ;' E #= !# ' =?# D =A' K?= =A' ?=' ? #B4' = ' #B #' ?!' C@B' E #= ! 4' EB?' E ; ' K?=# = ?C ' = ' @ < ' ?!' #B ;' ?E= ' @@?; ' #?' A ' # !# <?=>' E #B?C#' =>' @ # # D= ' ?;' F @C# ?=' 8> =A' =' K;?@ ' !?;' #B #' !! @#4' ' 8>" E > ' #B #' =>' E; ##' K;?L C@ ' !?;' K;?D # ?=' E ' =?# K;? =' = ' ; ! ' #?' D ' B ' B = ' E; # =A' ?;' !CD!@; K# ?= 4' = ' @?=L ; =A' #B #' D>' #B ' 8 # ' 8 <' ?!' AB#' *#' ' FL K; !8>' K;? > ' #B #' #B ' @ C =A' KC; C ' = ' !?; L ! C8#' K ; ?= ' CK?=' !; ?8?C ' = ' E " ' K; # =@ ' = ' CK?=' ! @# ' = ' 8 < ' K;?D # ?=' ' @?=#; ; ' #?' 0 E' %B ; !?; ' %B ;' !# ' E #B' >@ ' = ' @?=# =# ?!' #B ' ' %B; ' &!# # ' ?!' / ;8 < =#4' ? ' B ; D>' F' C!# # ' !@ = 4' C@ 4' ! ' = ' < " ' ? ' #B ' !?; ' =# =@ ' = ' ??< ' ?!' !?;9' ! C8#C; ' A =' = ' K;?=?C=@ ' A =!# #B ' ' 9' !# (;' ;@BD 8 ' J?B=!#?=' ' ?!' 2 !#?= 4' = ' 88' A !# ' !?; ! C8#C; ' = ' !@B # ' = ' ?#B ; ' #B # B ' !?88?E ' ?;' < >' !?88?E' #B ; CK?=' =' =>' !?;#' = ' ? ' ; !#?; ' #B ' ! ' @ !# (;' ;@BD 8

& %' %B ' K # # ?= ' A =' =' = ' K; =# ' #?' ' #B ;' !# ' B AB' ?<< ! ?= ;' = ' #B ' AB# ?=?C; D8 ' #B ' &!# # ' ?!' / ;8 < =#' ' #B ' 89' 8 ' = ' ?C=! 88' ?!' #B ' %?C= ' ?!' / !8 >' !?;' #B <9' ! 8 ' = ' =' = < ' = ' D B 8! ' ?!' #B ' ?< <C= #>' % ' (B E =A' %B #' EB ; ' D>' #B ' H' @#' ?!' / ;8 L < =#' .' !?;' #B ' @ C! W#B ; =' !K(#' *#' ' !# #C# ' = ' ?; = ' %B #' #B ' K;K ?!#' = ' D 88 ' ?!' =>' C;AB' ?> ' ' EB ; ' ;C =?C ' = ' C= =B D # ' B?C! ' ; ' !B 88' @ C! ' E ;= ' = ' @B ;A ' 88' K ;L ?= ' B =A' ?;' K; # = =A' #?' B ' ; AB#' #?' #B ' K;?K ;#>' ?!' C@B' DC 8 =A ' = ' 0 = ' ?;' =>' ; =# ' !C;#B' #B ; ?!' #?' @ C 'DC 8 ' = '; K ; ' =' ' @ =#' E >' E #B =' > ; ' = ' >' !C@B' ' E ; ' E !# ' = ' =?# =B D # ' #B; ' > ; ' D !?; ' #B ' # ' ?!' #B ' ! ' @#' ?;' #B #' !B?C8 ' D ' E !# ' = ' =?# *=B D # ' #B ; !# ;' D>' #B ' !?;! ' K @ 4' ?;' B ' #?' ! 88' #B ' ! < ' #?' ?#B ; ' #?' B ' BC 8 ' E #B =#B ' < ' K @ ' ?!' > ; ' = ' >4' = ' #?' @B ;A ' 88' "=?E= ' K ;L ?= ' K ; ?= 88>' ?;' #' #B ;' E 88 =A' K8 @ 4' = ' D>' ?K =' K;?@8 < # ?=' #' #B ' K ;?@B' 1 ;" ' ?;' < ;@ #' ;?! ' ?!' #B ' DC;AB4' = ' 88' ?#B ; ' D>' ?K =' K;?@8 9' < # ?= ' #' #B ' ! ' < ;@ #' ;?! ' = ' K ;?@B' ;" 4 = ' =' @ ! ' ?!' %' D! @ ' ?C# ?!' #B ' B= ' #' #B ' ;?! ' ?!' & =D Í = ' K ;' = ' *B?; ' ?!' 0 #B' CK?=' F# ' > ' E #B' ;# ! @ # ?= ' #?' #B <' !' #B >' W' ! 8A ' #B ' ! ' K;? ?!# = ' D 88 ' *B?C8 ' C8 ' #B ' ! ' 0 = ' < ' % = < =#' D ' 8C ' D>' ;7

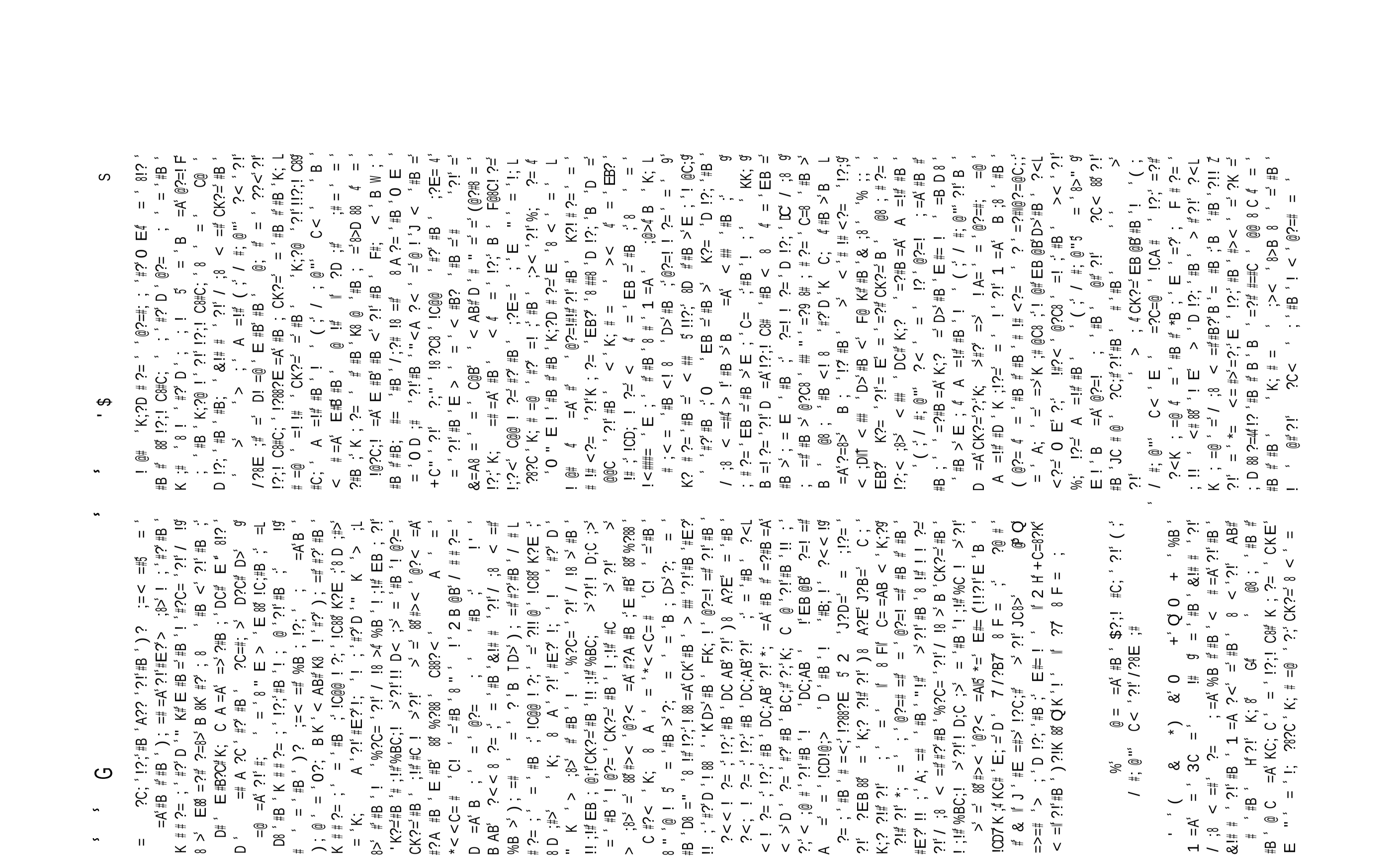
.

= ' K ; ?= ' #?' D ' B? =' Q' !E?;= ' D>' #B <' !?;' #B #' !! @#4 = ' ! 88' #B ' < ' #?' =>' K ; ?= ' #B #' E?C8 ' DC>' #B <' = ' K >' #B ' K;>@ ' !' #B ' < ' #?' #B ' ?E= ; ' !' #B >' E ; ' "=?E= 4' = ' !' =?#' "=?E= ' #?' @?= A= ' #B ' K;>@ ' #B ; ?!' =' #B ' B = ' ?!' #B ' K;?>?!#' ?= ' ?!' #B ' 88 ' ?;' + =' ?!') C 8 ' ?!' #B ' ! ' DC;AB' #?' D ' !C;#B@?< =A' #?' #B ' EB?' B ' *=# ; !#' #B ; #?' = ' !' =?' < =!8 ?C8 DC>' #B <' *#' *B?C8 ' D 48 E!C&' #?' #B ' ' K;? ?!#' = ' D 88 ' !# ;' KK;>! =A' #B ; ?!' = ' K >< =#' ?;' ?=! A= # ?=' ?!' #B ' K#>@ ' ?!' #B ' ! < 4' #?' @ !!' ?C=' #B ' ! ' ;C =?C ' B?C! ' = ' @ C! ' DC 8 ' #B ' ! < ' ?!' = E ' = ' #' ' @8 ; ' #B #' #' B?C8 ' =?#' D ' 8 E!C86' *=' =>' #>< ' #B ; !# ;' #?' =>' < == ;' ?!' K ; ?= ' ?;' K ; ?= ' #?' KC;!C ' #B <' =?;' #B ;' *B@@ ! ?; ' #B ; !?;' =?;' K; # = ' =>' ; AB#' ?;' *=9' # ; !#' #B ; #?' DC#' #B #' #B ' * ' ; AB#' !8 ?C8 ' D ' ' K ;! @#' ! @C; #>' #?' #B ' DC 8 ; ' #B ; ?!' = ' #B ;' !C@@ ! ?; ' ' #B ' 8 ' @#' =' #' ! 8! ' <?; ' !C ' >' D ; 4' = ' 8D #' #B ' ! ' %?C= ' ?!' / !8 >' =?#' D =A' ' DC;AB' 1K> 88' @ ==?#' K; # = ' #?' =>' K; 9' 8 A ' D>' #B ' !?;! ' @#4 > #' #B ' B?C! ' EB @B' K ;# = ' #?' #B 9' @ !#' J < ' (# E ;#' ?!' ;!9' D =" ' 8> =A' =' #B ' =?!#' KCD8 @"' K8 @ ' ?!' #B ' AB' !#; #' ?!' #B ' ' %?C= ' = ' =' #B ' E' ?!' #B ' ;?! ' = ' < ;@ #' K8 @ ' #B ; ?!' B =A' D =' ;C =?C ' = ' =?#' =B D # ' <?; ' #B =' #B ! ' #B ;#>' > ; ' D>K !#' ' '"=?E= ' #?' !B ; 88' ?!' #B ' < <L D ; ' ?!' #B ' K; =#' / ;8 < =#' = ' #?#' 8 " 8>' #?' D ' ; K ; 4' #?' #B ' ?KK;?B; ' ?!' #B ' ! ' %?C= ' = ' @?=<<?=' @ = 88' K!' #B ' 1 =A ?< ' = ' #B ' K # # ?= ; ' D =A' ;>' ! ; ?C ' #?' K; =#' #B ' =A ; ' < ' =@?= = =@ ' EB @B' #B ' *=B D # =#' ?!' #B ' ! ' %?== ' = ' #B ' ; !#' ?!' #B ' 0 A ' !; L NC =# =A' #B ' ! < ' < >' !C!# = ' !;?<' #B ' ! 88 =A' ?!' #B ' *< ' C =?C ' B?C! ' = ' > ; ' >" ' . ' E?C8 ' E 88 =A8>' DC 8 ' ?;' @ C! ' DC 8 ' Q' ; K ; ' #B ' *"< ' !' C#B?; W ' #B ; C=#?' %B ; !?; ' ; =A' #' < AB#' K8 ! ' B ') ; @ ' = ' 0?; B K ' #?' @?=L ;' #B ' K; < 8 ' = ' #?') ; =#' E ;; = ' #?' #B ' K # # ?= ; ' #?' E < ' = ' B ;A ' '' K ; ?= ' #B #' B ' ?;' K; # = ' ; AB#' #?' #B ' K;?K ;#>' ?;' ; =#' ?C#' ?!' #B ' !?; ' B?C! ' = ' > ; ' @ =#' = ' KK ;9' #<= =A' #B ; #?' #?' @ C! ' DC 8 ' = ' ; K ; ' #B ' 8 < 4' =' < == ;' E #B =' #B ' K @ ' = ' E #B' @ ;# ! 9' @ # ?= ' ' !?; 4' #?' ! '' Q' ? ' ;>' #B =A' = =#' #B ' ! < ' EB @B' =>' ?#B ;' DC;AB' D>' ;#C ' ?!' #B ' !?;! ' @#' ?!' / ;8 < =#' < AB#' ? 4' = ' K >' ?;' @?=L A= ' #B ' K;>@ ' #B ; ?!' =' #B ' B = ' ?!' =>' ?= ' ?!' #B ' D 88 4' ?C=! 88?; ' ?;' %B ! C; ; ' B = ' ?!' #B ' ! ' %?C= ' = ' !' =?' < =' E 88' DC>' #B <' #?' L @8 ; ' #' !B 88' D ' 8 E!C88' #?' #B ' K # # ?= ; ' !# ;' KK;> =A' #B ; ?!' = ' K >< =#' ?;' @?=! A= # ?= ' =' < == ;' !?; ' ?!' #B ' K;>@ 4' #?' @ !#' ?E=' = ' DC 8 ' #B ' 8 < ' ?!' = E ' = ' #B #' #' 8B 88' =?# D ' 8 E!C86' =' #>< ' #B ; !# ;' #?' =>' < == ;' ?!' K ;L ?= ' #?' KC; C ' #B <' =?;' #B ;' !C@@ ! ?; ' #B ; !?;' =?;' K; # = ' =>' ; AB#' ?;' =# ; !#' #B ; #?' DC#' #B #' #B ' ! ' AB#' *B '' D ' ' K ;! @#' ! @C; #>' #?' #B ' /8%!5-+,' #B ; ?!' = ' #B ;' !C@@ ! ?; ' = ' #B #' #B

@#' #?' D ' F#; @# ' B ;CK?=4' !8 88' D ' F@ K# ' !;?<' #B ' A = ; 86' @#' (8 ?' JC; ' C C 8 D #' #?' D ' K 8#' =' #B ' / ;8 < =#' ' #B ' ! ' K # # ?= ' =' #' ! 8! ' #' 8 =#B' @?=# = ' 2 B @B' / # # ?= ' D =A' ; ' = ' B ; ' =' K; =@ ' ?!' #B ;' 88 ' B AB' ?<9' < ! ?= ;' = ' #B ' &!# # ' ?!' / ;8 < =#4' %B >' L < ## ' = ' B ; D>' < ## ' #B ' < 4' #?' D ' ?=L ; ' = ' ; K?;#' #?' D ' A =' #B ; CK?=' D ' #B ' ?< ## ' KK?>=# ' !?;' ?=#; ;# ' &8 @# ?= 4' 2 B @B' K # # ?= ' 8!? ' E #B' #B ' < ##' < ' #?' #B ' ! ' ?< ## 4' ' 8!? ' = ' @#' =' ! ?C; ' ?!' #B ' ' %?== ' !?;' B ' &= ' !?;! 4' D =A' D ' #B ' ! ' ?< < ## ' ?= ; ' %B ;' K?;#' ' #B #' #B >' ; ' ?!' ?K = K=' %B #' #B ' < =' B?C8 ' K ' =' / ;8 < =#4' = ' #B #' #B ' ! ' %?C= ' !8 ?C8 ' B ' #B ' D ' ! # ' ?!' #B ' F#B' @#' ?!' / ;8 < =#' .' =# #C8 ' @#' = =#' C =?C ' B?C! ' =' ?> ' ' C;AB ' F# = ' #?' #B <' =' #B ' K ;# @C8 ;' @ ! ' *=' ; K @#' #B ! ' B?C! ' 8> ' =' #B ' <?8#' KCD8 @"' K8 @ ' ?!' #B ' %?E= ' #?' #B ' A; #' ?KK;?D;>' #B ; ?!' = ' ?< < ?=' !@ = 88' ?!' #B ' " =A ?< ' D > ' #B ' A; #' =A ;' = ' =@?= = =@ ' #B #' #B ' *=L B D # =# ' = ' ?#B ;' 0 A ' !; NC =# =A' #B #' K8 @ ' < >' !C!# = ' #B;?CAB' #B ' ! 88 =A' ?!' #B ' ;C =?C ' E 88 ' #B ; ?!' !' =?#' K; =# ' D>' ' E ;; = ' = ' ?; ;' #?' D ' A; =# ' D ' #B ' K; =#' / ;8 < =#' #?' #B ' 88 ' = ' %?C= ' ?C=! 88' ?!' #B ' ' %?C= ' / !8 ' #?' ? ' #B ; =' @?=!?;< ' #?' #B ' # =?;' ?!' #B ' 7' @#' ?!' / ;8 < =#' .' ' !' #B ' ! ' %?C= ' E ; ' ' ?> ' ' C;AB

%' =' ! ?C; ' ?!' #B ' %?C= ' ?!' / 8 >' !?;' #E?' > ;8>' ! ;

& %' %B ' / # # ?=') =' =' = ' K; =# ' #?' 2 ' ') ; @ ' %B ;' !# ' B AB' ?<< ! ?= ;' = ' #B ' AB#' B?=?; D8 ' (# # ' ?!' / ;8 < =#' ' #B ' ' ' = ' ?C=! ' ' ?!' %8 ' %?E= ' ?!' / !8 >' !?;' #B < 8 ' = ' =' = < ' = ' D B 8! ' ?!' #B ' ?<L < C= #>' #B ; ?!' (B E =A' %B #' #B ' K # # ?= ; ' D>' ; ?= ' ?!' #B ;' B > C!! ; =A ' C= ;' #B ' %E?' 8 # ' A= ' B ' ;C=' =' A; #' D# ' EB @B' #B >' ; ' C## ;8>' C= D8 ' #?' CKK?;#' C= ;' ?;' !; ' #B <L 8 ' ?!4' 0>" ' #B >' B ' ?=' 88' ?@@ ! ?= ' < = 9' ! !# ' ' <?!#' ! ; =# W 8 ' = ' =# ; ' !! @# ?= ' #?' #B ' K; ! =#') ? ;=< =#' = ' K ;# @C8 ;8>' =' ;@B' * ' AB#>' =>= 4' #B >' ' <?!#' @B ;!C ' >' = ' =' ' ?<K =>' ?!' < =' #?' E # ' CK?=' #B ' < # =A' ?!' &!# # ' #' & =DC;AB4' = ' ; ' !# 88' ; >' #?' @?=#; DC# ' #B ;' 8 ' !?;#C= ' = ' C#< ?8#



% ‘#B ‘ #B =‘ K; 8 # ‘ *=<! 8! ‘ ‘ ; K;? ‘#B ‘ ‘ K; # = ‘ * = # ;‘ !?;‘ B ‘ @;C 8‘ C== #C; 88‘ C A ‘ ?!‘ B ;‘ = ‘ B ;‘ ! < 8>‘ @?= ; =A‘ B ;‘ @B ;A 4‘ > #‘ B ‘ # 88‘ ; = E ‘ B ‘ K ;! @C# ?=‘ = ‘#?‘ @;?E= ‘ 88‘ B ‘ !?;< ;‘ @;C 8# ‘ =‘ #B ‘ > ; ‘ Ú EB =‘ K74‘ # =‘ 1 == #B‘ 88*‖ 1 =W ‘ ?!‘ (‘ E ‘ =# E #B‘ ‘ ; ‘ ?< ! ?=‘ !;?<‘ #B ‘ K; ‘ ?C=!@88‘ #?‘ @?< ##‘ 88‘ ?8 =@ ‘ #?4‘ = ‘ K ; @C# ‘ ‘B = !C88‘ ?!‘) ? 8>‘ K ?K8 ‘ *=‘ #B ‘ B>; ‘?!‘ C;; >‘ Q ?! 4‘ # ?‘ #B ‘ ! ‘ K!7 B;" =W ‘ B <! 8! ‘ =@8 = ‘ #?‘ A ‘ =?‘ !#C;B =@ ‘ #?‘ #B ‘ K # # ?= ;‘ X C A =A‘ B ;‘ AC 8#>‘ ?!‘ =?#B =A‘ ?!‘ #B ‘ ; ‘ C! A ‘ 88 ‘ < ##]‘ E #B‘ = C ?C ‘ #?‘ D ‘ B ; ~‘ B =A‘ ?=8>‘ = ‘#B #‘ ;>‘ ! 8 ?< ‘!?= ‘ < # =A ‘ #‘ B ;‘ B?C! ‘ ?!‘ ‘B = 9‘ !C88‘ ?!‘ K??;‘ K ?K8 ‘ @?< =A‘ #?‘ B ; ‘#B ‘ E?; ‘?!‘) ? ‘KC; 8>‘ K; @B ‘Q =?= ‘E #B?C#‘ ??; 4‘ ;9‘ #B 8 ! ‘ #B ‘ 8 ‘ K; # = ‘ = !# ;‘ ‘ =!8 A # ‘ #B ‘ 8 ‘ K#P‘ 8@ =W 4‘ = ‘ ‘ #B ‘ K # # ?= ;‘ ‘ =!?== ‘ ‘ ; NC ; ‘#B ‘ ! ‘ K#P‘ ‖" =W ‘CK?=‘ B ‘ 88 A =@ ‘ #?‘ KC#‘ B ‘ ?<< ! ?=‘ =‘ &F @C9‘ # ?= ‘ ; K; =# =A‘ B ;‘ = ‘ B ;‘ ! < 8>‘ #?‘ D ‘ ‘= !#‘ ?!‘ D 88 4‘ = ‘ #B ‘ ?=8>‘ =# ;# = ;‘ =‘ #B #‘ K8 @ ‘ ?!‘ A; =# 88 = # ; ‘Q =# ;@?<<C= ‘K ; ?= ‘ = ‘ #B #‘ B ‘ B ;! 8! ‘ E ‘ #B ‘ ?=8>7‘ @ DD ‘ B N ‘ #B #‘ !>8 ‘ B ‘ !8?@"‘ Q@‘ ' K?=‘ EB @B‘ #B ‘ ! ‘ K# = ‘ X B ‘ ‘ K# #?‘ D 8 ‘ <?; ‘ ?=# ?!‘ = @ ! #>‘ #B =‘ @B?>! ~ =# ‘D = ‘?!‘ ?K8 ; ‘ #?‘ W ‘ B ;5 = ‘ A; =# =A‘ ‘ ?! # ?=‘ ?!‘ 88‘ #B ‘ K # # ?= ; ‘ <? L D8 ‘ D ‘ ;# ' ‘ ?!‘ B ‘ ?<< ! ?=‘ #?‘ @?=! =#‘ K ; ?= 5 DC#‘ !B ‘ B =A‘ =?# @ ‘ #B ‘ = AB#‘ D !?; ‘ 0‘ B ‘ ! A= ‘ E ‘ !?;@ ‘ #?‘ !8 ‘ =‘ #B ‘ = AB#‘ #><‘ E #B‘ ?= ‘?!‘ B ;‘ !?= ‘ ?!‘ !?C;# =‘ > ; ‘?!‘ A ‘ ;C=9‘ = BA‘ #‘ B ;‘ !??# =‘ #B ‘ E =# ;‘ #>< ‘ #?‘ (#; #B= ;‘ B 88 4‘ EB <‘ #B ; ‘ E ; ‘ ; 88‘ K ;# ‘ =# =‘ ! ;@B‘ ?!‘ B ;4‘ >; =A‘ B ;‘ =C< ;?C ‘ ! < 8>‘ #‘ K ;# =A‘ #?‘ ! !# 88‘ !?;‘ #B <! 8 5 B ‘!8 > ‘#B; ‘ <?= #B ‘ =‘ (#; #B= ;‘ # 88‘ #B ‘ <?!85 E?;#B>‘ @ !85 0 >‘ (#; #B= ;‘ ! =# K; # 8>‘ !?;‘ B ;‘ =‘ #B ‘ = AB#‘ # < ‘ = ‘ " K ‘ B ;‘ #E?‘ <?= #B ‘@8?! ‘ =‘ ‘ B <D ;4‘ = ‘#??" ‘ B?< ‘ ?= ‘ ?!‘ B ;‘ CAB# ; ‘ ?C#‘ ?!‘ B ; #>‘ (;‘) ?;A ‘ ?=;?‘ #??" ‘ =?#B ; ‘ (;‘ J?B=‘ ? 8;? 4‘ (" D?4‘ << ‘ = ‘?#B ;‘ !; = ‘ #‘ *= ;= ! ‘ !?;‘ #B ‘ <?!8‘ K ;#‘ =# ;# = ‘#B ‘ ; !84‘ EB 8!#‘ 88‘ #B ‘ ! < 8>‘ E ; ‘ !@ ## ; 4‘ K#P‘ 9‘ " =W ‘ ! A= > ‘! ! ‘?=‘ Q <D W8 ‘ 88‘ B ;‘ @?< ‘ @ ##8 ‘ B?C!8 ?8 ‘ K8 = !8 =A‘ = ‘ #E?‘ > ; ‘ =# ?!‘ B ;‘ 8 = 4‘ = ‘ EB #‘ #B >‘ 8 !# #B ‘ ?<<?=‘ !?C8 ; ‘ < ‘ C! ‘ ?!5 = ‘ # 88‘ #B ‘ > ; ‘ ‘#B #‘ B ;‘ !?=‘ #‘ & =DC;AB‘ D>‘ #B ‘ *=# ; !# Q <?> =‘ ?!‘ ?< ‘ B?=?; D8 ‘ !; = ‘ K;?@C; ‘ ‘ E ;; = ‘ !;?<‘ #B ‘ K; >‘ ?C=! 88‘ E #B‘ ‘ 8 ## ;‘ !;?<‘ (;‘ 2P7 / # ;9‘ !?= ‘ #?‘ #B ‘ ?<< ! ;‘ ?!‘ ?! ‘ B ‘D;?#B ;‘ #?‘ ?; ;‘ #B ‘ 8 A !#; # ‘ ?!‘ % >= ‘ #‘ B ;‘ !?= ‘ ! AB#‘ #?‘ ; K?=@‘ B ;‘ #?‘ B ;‘ ?E=‘ B?C! ‘ = ‘ #?‘ !8 >‘ #B ; ‘ E #B?C#‘ =>‘ !#C;D =@ ‘ K;? > ‘ ! 8 ‘ " K ‘ =?‘ #C<C89‘ #C >‘ ?= =# @8 ‘ = ‘ !?;‘ #B ‘ ! ‘ A !8; # ‘ A =A‘ ?D =@ ‘ #?‘ #B ‘ ?<< ! ; ‘ E ;; = 4‘ #B ‘ = !# ;‘ ?!‘ #B ‘ K8 @ ‘ ! ?; ‘ E #B‘ #B <4‘ ? ‘ #B #‘ !?;‘ ‘ 8?=A‘ #><‘ #B >‘ E ; ‘ =?#‘ =‘ K " =A‘ # ;< 4‘ >‘ EB @B‘ !?;< ;‘ K ;! @C# ?= 4‘ D = !8 < =#

= ‘ 8C;" =A‘ B ;?‘ = ‘ #B ; ‘ !;?<‘ B ;‘ ?E=‘ B?C! ‘ !?;‘ #E?‘ > ; ‘D ! ‘#B ‘!@ ## ; =A‘?!‘B ;‘=C< ;?C ‘ ! < 8>4‘ B ;‘ ?E=‘ = ‘B ;‘ B 8 ; = ‘ 0?! ‘ XEB?‘ D>‘ #B ‘ 0 E‘ ?!‘ = #C; ‘ !?C= ‘ #B <! 8 ‘ ?D8? A ‘#?‘ < " ‘ CK‘ ?< ‘ #?@"‘ #?‘ B ;‘ #?‘ ! ##‘ CK‘ A = ‘#?‘ !CD!#!#~ ;‘ 0?! ‘ ?!‘ A?? ‘ @?< ‘@ ##8 ‘ Q B?C!8 ?8 ‘ K8 = !8 =A‘ ‘ <?C=#‘ #‘#B #‘#>< ‘?=8>‘#?‘CKE ; ‘ ?!‘ ‘ ;" 5 = ‘ =?E‘ =A‘) ? ‘ =‘ B ‘ =L ! = # ‘ E ! ?< ‘ = ‘ < ;@>‘ B #B‘ D =‘ K8 ;! ‘ #?‘ < " ‘ ?C;‘) ; @ ?C ‘ 1 =A‘ = ‘ 3C =‘ B ‘) ; @ ‘Q #B ‘B?=?C; D8 ‘ / ;8 < =#‘#B ‘D8 ! ‘ *=!#;C< =# ‘ =?# ?=8>‘ ?!‘ ?C;‘ ; ! ‘!;?<‘K?K !#‘ ;# ! @ 4‘ 8 ; ‘ = ‘ #8 ‘ =# ; !# =‘ C=!CKK?;# D8 ‘ K; 8 # 88‘ D?= A 4‘ DC#‘ 8!? ‘#B ‘#‘#B ;‘ !# 4‘ ‘) ; @ ‘ #B ‘ ?<< ! ?= ;‘ = ‘ #B ‘ B?=?; D8 ‘ &!# # ‘ ?!‘ / ;8 < =#4‘ + ? ‘@?=! ;‘ ?!‘ #B ‘ K ; @C# ?= ‘ = ‘ #B ‘ C= CKK?;# D8 ‘ 8?! ‘ ?!‘ < =>‘ ?KK; ! ‘ ?= 4‘ EB?‘ B ‘ =?#B =A‘ <?; ‘ D !?; ‘ #B ;‘ > ‘ B?#‘ #?‘ 8 ‘K @ D8>‘ = ‘ ; ‘) ? ‘ =‘ =@ ; #>‘ E #B?C#‘ *=# ;< 8 =A‘ E #B‘ #B ‘ ; AB# ‘ = ‘ C!#‘ C#B?; #>‘ ?!‘ #B ‘ ! @C8 ;‘ K?E ;4‘ D =A‘ = ‘ ?; = =@ ‘ ?!‘) ? 4‘ = ‘ #B #‘ #B ‘ CKK8 @ =# ‘ K ; @C# ?= ‘ = ‘ 0?! ‘ B ‘D =‘ >‘) ; #‘#B?‘ !B ‘D B ‘B ;! 8! ‘ ;>‘ *==?@ =#8>‘ ‘ ‘ E 88‘ "=?E=‘ #?‘ ! < ‘ < <D ; ‘ ?!‘ #B ‘ / ;8 < =# %B ; !?; ‘ ; =A‘ #‘ < AB#‘ K8 ! ‘ B ‘) ; @ ‘ #B ;‘ !# (‘ B AB‘ ?<< ! ?= ;‘ = ‘ #B ‘&!# # ‘?!‘ / ;8 < =#‘#?‘# " ‘#;> 88‘ ?!‘#B ‘ EB?8 4‘#?E ; ‘#B ‘8 NC # ?=‘ ?!‘#B ‘ K ;# @C8 ;‘ 8?! ‘ !;?<‘ #><‘ #?‘#><‘ 4‘ = ‘#?‘ ; K?;# ‘ %B #‘ B ‘) ; @ ‘ #B ;‘ !# ‘ ?<< !L ?= ;‘ = ‘&!# # ‘?!‘ / ;8 < =#‘ < AB#‘ ? ‘#B ; =‘ ‘#B >‘#B?CAB#‘ ! ##4‘ ‘#B ‘! ‘ CKK8 @ # ?= ‘D ; ‘ 2 B @B‘ K # # ?= ‘ D =A‘ D ; ‘ D>‘ B ‘* 8 !# ‘ B AB‘ ?<< ! ?= ;‘ = ‘#B ‘&!# # ‘?!‘ / ;8 < =#4‘ %B ;‘ !# ‘ B AB‘ ?<< ! ?= ;‘ = ‘ &!# # ‘ ?!‘ / ;L 8 < =#‘) ; =# ‘ = ‘ ? ‘ B ; D>‘) ; =#‘ ?<< !L ?=‘ #?‘ =>‘ NC?;C<‘ ?!‘#B ‘ ?<< ! ?= ; ‘ ?!‘ #B ‘ CKK8 ‘!?;‘#B ‘ B>; ‘?!‘ ?! ‘ #?‘ @?A=?! ‘CK?=‘ = ‘ 8 NC #‘#B ‘ < A ‘ !C!# = ‘ D ‘ #B ‘K # # ?= ; ‘ =‘ < == ;‘ D !?; ‘ ; K; ! =# 4‘ E #B‘ K?E ;‘ #?‘ #B <‘ #?‘ A ‘ E ;; = ‘ !?;‘ @ 88 =A‘ ! @B‘ K 9#> ‘ = ‘ E #9‘ = ! ‘ ‘ < >‘ D ‘= @ ! ;‘ !?;‘ #B #‘ !! @#‘ = ‘ #?‘ ; L K?;# #?‘ #B ‘ = F#‘ ! ! ?=‘ ?!‘ #B ‘ ?;‘ =>‘ ?#B ;‘ =!C 9‘ =A‘ / ;8 < =#

%‘ @ = =A‘ #B ‘ $?;! #C; ‘ ?!‘ J < (# E ;# ?@ #

$ (' ‘ ‘CK?=‘ #B ‘ F# =#B‘ >‘ ?!‘ JC8>‘ G *%‘ @ ‘ Q AB#>‘ !> ‘ =# =@ ‘ = ‘ ??< ‘ ?!‘ !?;9‘ ! C8#C; ‘ E ‘ A =‘ = ‘ K;?=?C=@ ‘ D>‘ #B ‘ 0?; ‘ ?!‘ JC # @ ;>‘ A ! 5 J < ‘ (# E ;# ?@ # ‘ !?;

' ' '*=B ' '

S G

B ' @?= ; =A' = ' *=# ;@?< =C= =A' E #B' #B ' 8 # ' & ;8 ' ?!' ;A>8 ' '!?;! # ' = ' @8 ; '%; L #?;' = '#B #' =?#' ?=8>' D>' #B ' @8 < ' ?!' AB#' #B ' !?;! # =A' ?!' #B ' ! ' & ;8 ' ?!' ;A>8 ' ' @8 ; ' #?' D ' @?=#; ;>'#?'0 E4 D?# #B ' ! =# =@ ' = ' ??;= ' ?!' !?;! =8#C; ' K;?=?C=@ ' A =!#' B <' * ' D>' = ' @#' ?!' #B ' K; ! =#' / ;8 < =#' # ' #B ' ! ;!#' ?!' =A=!#' 8 !#' !@ = ' = ' C@ ' = ' #B ' ! ' & ;8 ' < <?;>' = ' K? # ; #>'; #?; ' A =!#' #B ' ! < 'K ;' <? C<' !# # '%B ; !?; '%B ' 1 =A' = ' 3C = ' !# ' E #B' >@ ' = ' @?=# =#' ?!' #B ' #B; ' &!# # ' ?!' / ;8 < =#' ? ' F' C!# # ' L C@ ' !@ = ' = ' @8 ; '=C88' = ' ?> '#B ' !?; 9' ! ' ! =# =@ ' = ' ??< ' ?!' !?;! #C; ' K;?=?C=@ ' A =!#' #B ' ! 'J < ' (# E ;#' E #B' 88' #B #' B '!?8L 8?E '?;' < >' !?88?E' #B ; CK?=4 !@B ;A =A' B <' #B ; ?!' = '?!' #B '8>D 88' = 'B 88' A;?C= ' EB ; L CK?=' #' K;?@ ' = ' ; K?= =A' B <' A =!#' # 8 ' ! < '*=' *=# A;C<' ! @"'8 " ' = ' 8! '!; 8>' = '!C '>' ' !' #' B '= ;' D =

%' =' ! ?; ' ?!') ?;A ' $C88 ;#?= ' ?!' +; AB?;= 'DC; = =A'#B ' !# # '?!' !!; C@B' E #B' UU '< ;"

G ' % &* ' # ' B AB' ?<< ! ?= ;' = ' #B ' &!# # ' ?!' / ;8 < =#' B =A' # " =' #?' #B ;' @?=9' ! ; # ?=' #B ' @ ! '?!') ?;A ' !C88 ;#?C= ' ?!' +; AL B?;= ' EB?' ';; =! @#' #B '!?;! =8#C; '?!'#B '0 ; ' ?!'! ; C@B' = 'B =A' B ; ' = '@?=8 ; ' ' < !9' ' 0 ## ;' D>' ; 86' ?!' #B ' = ; !#' !; = ' ?!' #B ' ! ' !!; C@B' #?' #B ' ! ') ?;A ' !!C ;#?C= ' = ' #B '0 ; '?!' !C88 ;#?C= 'B 'D;?#B ;' 88?E =A'#B <' #?' = ' #B ' #; =! @# ?=' E #B' #B ' ?= #?;' CK?=' #B ' !?C< ' A; ' !?;' = ' #B =" =A' #B <' !?;' #B ;' K = ' = ' @ ; ' # " =' !?;' #B ' K; ; # ?= ' ?!'#B ' ! < 8>' = ' #B ; !# ;' #B ' @?= =#' ?!' #B ' < ' !; = ' = ' ; 8 # ?= ' = ' <?; ' ?!' #B <' B D # ' D>' #B ;' E; ## =' !CD! ; K# ?= ' @"=?E8 A =A' #B ;' #; =! @# ?= ' #?' B ' K;?@ ' D>' #B ;' ?>=#' L >@ ' ! ! # =@ ' = ' ; @# ?= ' = ' ; # !> =A' = ' KK;? =A'#B '! < 4D?#B' EB @B'D =A' ; '=' #B ;' K; =@ ' = ' B =A' # " =' #B ' ? #B' ?!' 2 ' <' ?E 88' ?!') ;#B8 = '?= '?!'#B ' !CD8! ;>' ; 'B?#B' ?!' #B ' ! ' < ! ' 0 ## ; ' = '@?=# =#' 8 ; =A' #B ' ; #>' ?!' EB #' ' @?=# = ' =' #B <4 = '#B #' #B ' @?<K? # ?=' K > ' E ' !?C;#>' !?C;' #B?C8"= ' < ;" 4 ' 8!? ' B =A' ! =' #B ' @ =@ 88 ' T 9' @8 '?!' A; < =#' D #E F#' #B ' ?= #?;' = ' !C88 ;L #?C= '?!'#B #' 8 " ' = ') ?;A ' !C88 ;#?C= ' D !?; ' #E?' ?!' #B ' = ;' ; 8 # ?= ' ?!' !!; C@B' EB?! ' !CDL ! ; K# ?= ' #B ; #?' ; ' > #' =# ; 4 #?A #B ;' E #B') @?; ; '!! 8 ;#?C= ' ; # ; 'D = '!;?<'#B ' ?= #?;' E #B' #B ' ?= #?; ' ! B ;A ' ?=' #B ' D @"' #B ?!' @"=?E8 A =A' #B ' ; @ K#' ?!' !?C;#>' !?C;' #B?C9' ! = ' < ;" ' %B >' %B ; !?; ' B ; D>' ; = ' #B ' @# ?= ' ?!' #B ' !?8"8 ' !?;! C8#C; '?!'!!; C@B' #?' D 'DC; = ' E #8 ' #B ' !?C< ' ?!' !!?C;#>' !?C;' #B?C9' ! = '< ;" ' = ' ==C 8; =# ' #B ; ?!'; !# =A' = ' =' #>< '@?= =A

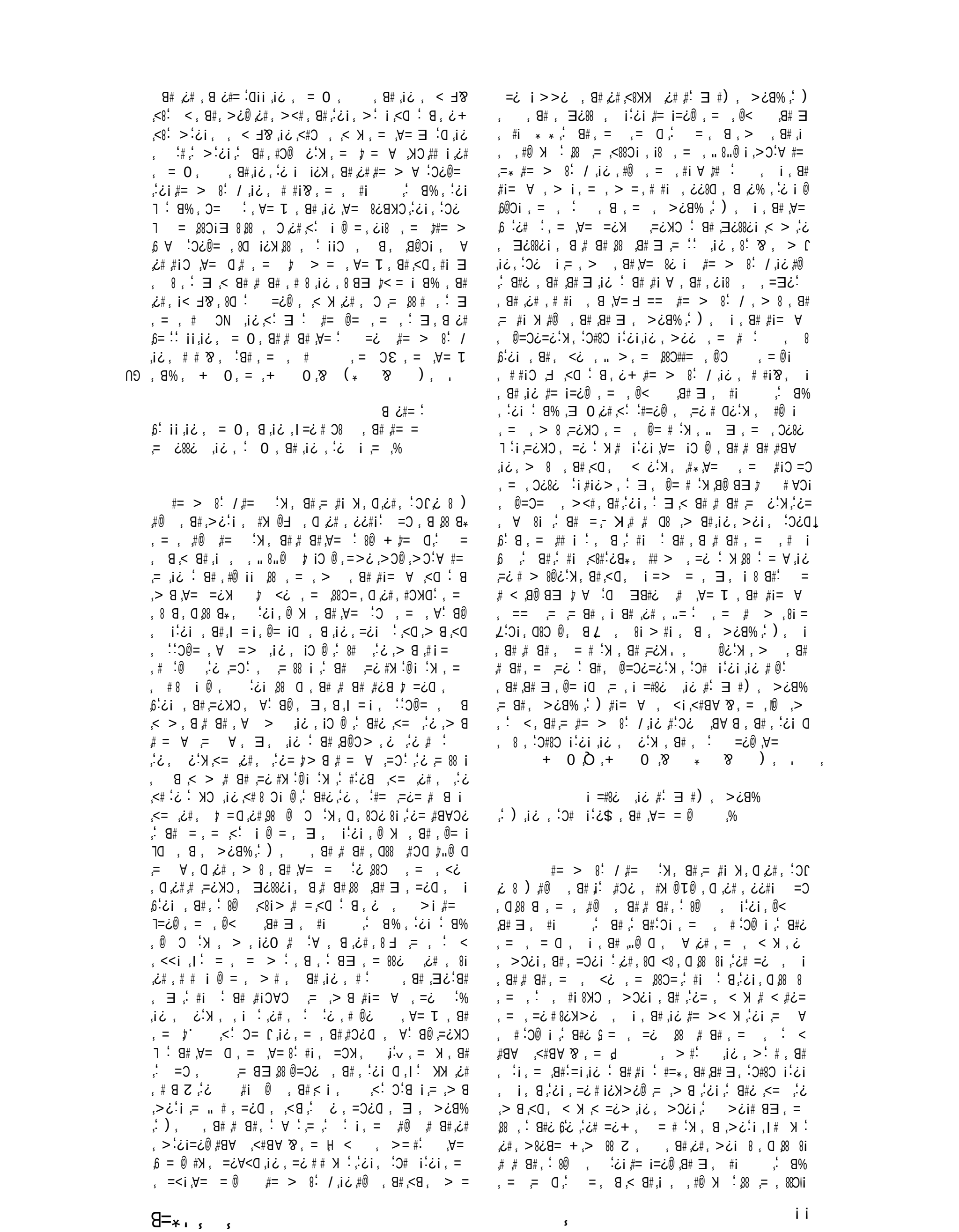
%*$* %* ' ?!' #B ' &; @# ?=' ?!' #B ' = E' " ;"' ?!' (# ;

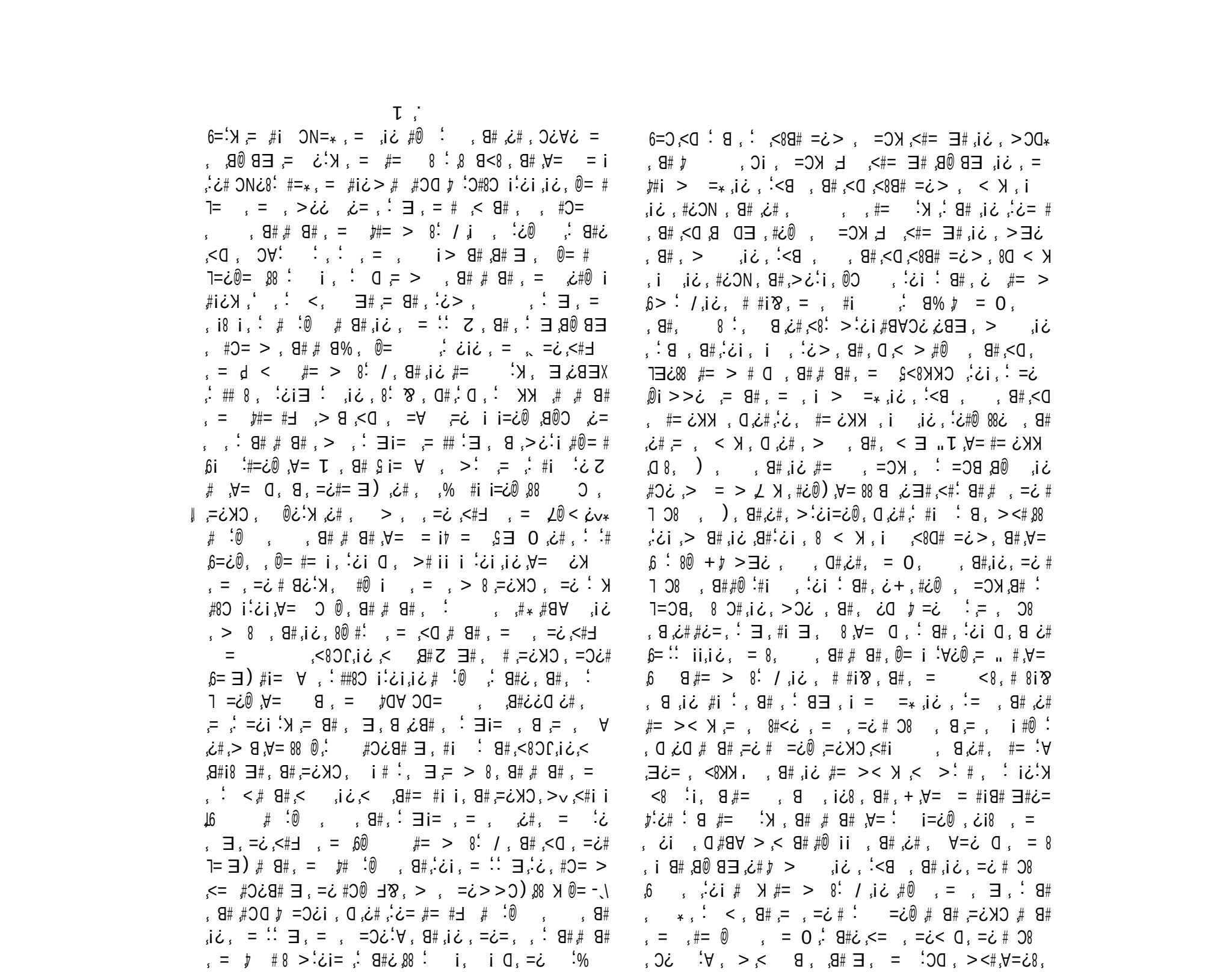
' ' (& *) &' 0 ' Q' 0 + ' E #B' G ' >@ ' = ' @?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' / ?' B ; D>' # ! ' = ' K ;K #C 88>' ?=! ;< ' #B ' @; #' ?!' &; @# ?=' ?!' '= E' " ;" '?!' @ ;# = 'D ;9' ;?= ' = '0 = 'EB @B' E ; ' 'K ;#' ?!' #B 'K ;?@B' ?!' @B 8#;>4 2 B @B' / ;?@B' ?!' @B 8#;>' E ' '8 ;A ' K ;?@B' = '#B ' " ;" '! #C # ' #' #B '! ;;' = '?!' #B ' K ;?@B4 #?A #B ;' E #B' #B ' !< <D; # ?= ' == F L # ?= ' = ' K;? ! ?= ' ?!' #B ' ' = E' " ;" ' 88 ' #B ' " ;" '?!' (# ;' = ' #B #' @?=!?;< ' #?' #B ' !?;9' ! ' @; #' ?!' &; @# ?=' ?!' #B ' ?< < ! ?=' !?;' K8 =# # ?=' ?!' " ;!@ ' =' 88' #B ' B ' @8 C! ' = ' ;# @8 '#B ; ='@?=# = ' 2 B @B' ; #' 'B?8 =' 'B ; =' ; K # ' = ' '?!'#B ' # '#B ' >' ?!' * ' = ' > ;

*=' = < '?!' J?B=' ?@B; =' ?!' /;?# # #8E' 2 #< 'Q' ?#B ; ' 'K;?# #' A = #'#B 'K;?@ ' # ! @ # ?=

%' @ = =A' #B ' $?;! #C; ' ?!' 2 8L 8 <' + =B?8< '?!' 2 # B 88

' ' (& *) &' 0 +' Q' 0 + ' %B ' 1 =A' = ' 3C = ' !# ' ?= ; =A'#B 'K;?@ ' ?!' !?;! C8#C; ' 8 ' D !?; ' #B ' ?C;#' ?!'JC!# @ ;>' 'K?=' #B ' F# =#B' ?!'JC8>' * '> [H = ' AB#>'!> ' A =!#' 2 88 <' + =B?8< ' ?!' 2 !# B !8 ' =' D9' ! = ' E #B' #B ' =# =@ ' = ' ??< '?!' !!?;! #C; ' #B ; ?=' K;?=?C=@ 4 = ' #B #' D?#B' D>'#B ' *=# ;9' 8?NC #?;' ?!'#B ' ?<< !# ?= ; '?!'JC!# @ ;>' = '#B ' ; @#' ?!' #B ' ! ! '#B '! < ' >' '?=8>'K;?@ ' A =!#'#B '! ' 2 88 <' + =B?8< '!?;' B ' 88 A ' #; 8D= D8 ' ?= ;!#8 '??;; K?= =A' = 8=# ;@?<9' <C= =A' E #B' #B '8 # ' & ;8 ' ?!' ;A>8 ' #B ='K; L # = '#?' D ' '!?;! # ' = ' @8 ; '%; #?;4 = ' #B #'=?E' D>' = ' @#' K !#' ='#B ' 8 !#' ! !# ?='?!'#B ' K; ! =#' / ;8 < =#'#B '! =# =@ '?!'!?;! C8#C; 'A =' A =!#' #B ' ! ' 8 # ' & ;8 '?!' ;A>8 ' ' !@ = ' = 'B ' < <?; ' = 'K? # ; # ' ; #?; ' A =!#' #B ' 8 < 'K ;' <? C<' C!# # '%B ; !?; ' = ' ='K;?! 9' @C# ?= ' ?!' #B ' 8 < '?!' AB#' EB ; D>'#B '!?;9' ! C8# =A' ?!' K ; ?= ' CK?=' !; ?8?C ' = ' E " ' K; # =@ ' ' @8 ; '#?' D ' A =!#' 0 E' %B ;' L # ' E #B' >@ ' = '@?= =#' ?!' #B ' '&!# # ' ?!' / ;8 < =#' +? ' B ; D>' F' C!# # ' !@ = ' C@ 4 !' ==C8 ' = ' @8 ; ' ? ' #B ' ! ' ! =# =@ ' ?!' !!?;! C8#C; 'K;?=?C=@ ' A = #'#B ' ' 2 j' + =B?8< 'E7 K 'A !#' ?!' !?;! C8#C; ' = ' ! B #' = ' 88' ?#B ; ' #B #' 8 ' !?88?E ' ?;' < >' !?88?E' #B ; CK?=' !#?; =A' #B '! ' 2 88 <' + =B?8< ' #?' B ' D8?? ' !# # 'Q A?? ' = '= < ' = ' ! < ' A =!#' #B ' < ' =' *=# A;C<4 (@"8 " ' = ' '





@8 ; #?;' EB @B' ' ' A; ?C ' = ' B >' DC; =' #?'
#B ' ; ' ?!' ; #?; ' %B ; !?; ' %B ;' !8 '
E #B' @?=! =# ?!' #B ' &!# # ' ?!' / ;8 < =# +? '
(# #C# ' &= @# = ' @8 ; ' #B # =' 88' #>< ' @?< =A' '
==C 8; =# ' !8 88' ?=8>' D ' ; #?C; ' #?' #B ' D8 =@B'
C#>' ?;' ?#B ;' C#>' @?=# = ' =' #B ' B ; # D8 ' D?= '
?;' =! !#< =# ?!' ==C 8; =#4' = ' #B # =?' @# ?= ' '
?!' K @ 86' @8 ; #?;' # #B ' =!# =@ ' ?!' =>' CK L
; ?;' ?!' = ' ==C 88; =# !8 88' D ' C # = ' !C;#B ;'
#B =' !?;' #B ' D8 =@B' ?;' ?#B ;' C #>' @?=# = ' =' #B '
D?= ' ?;' *=! !#< =# ?!' ==C 8; =#4' C=# 8' @ # # ?= '
=' #B ' A = ; 88' @8 ; #?;

%' = =# B?;# / ; @; K# ?= ' ?!' C L
@ # ?= ' Q ?#B ;

' ' (& *) &' 0 +' Q 0 + ' = ' GV
#B ' &!# # ' ?!' / ;8 < =# @?=! ; =A' #B # C; =A'
#B ' !C;@ ! ' ?!' JC!# @ ' !;?<' #B ' 1 =A ' @?< =A'
=#?' ; ## = ' # 88' #B ' =?< = # ?= ' ?!' #B ' (! ?= '
< ' D>' B ' * * !#>' = ' #B ' K;?@8 < # ?= ' !?;'
?K = =A' ?!' #B ' A= # ?!' #B ' # ' #B ' !>!# =' >'
?!' @#?D ;' * ' AB#>4=>= ' > ; ' #B ; ' E ; '
! ; 88' B?;= =A ' K !# D>' 8 ; =@ ' ?!' #B ' 0?; '
?!' (! ?= ' = ' JC!# @ ; ' C; =A' #B # # < ' EB @B'
< =>' E ; ' C=E 88 =A' #?' C K = ' =' #B ' = < ' = '
C#B?; # ' ?!' #B ' 8 # ' 1 =A' %B ; !?; ' %B ;' 9' '
!# ' E #B' @?=! =# !?; ' ? ' @8 ; ' #B ' ! '

B?;= =A ' #?' D ' =C88' = ' ?> ' #?' 88' =# =# ' = '
KC;K?! ' = ' #B # =A' C; =A' #B ' #>< ' !?; '
#B ; ' E ' =?' ?; = ;' JC @ #C; ' D>' EB @B' @ 88'
@# ?= ' @?C8 ' D ' KC;!C ' %B ; !?; ' %B ;' J !#
' ? ' !C;#B ;' @8 ; ' #B # =' 88' @# ?= ' &F@ KL
?= ' ?;' ; K8> ' Q@' CK?=' B?;# K; @; K# ?= ' #B '
#>< ' !;?<' #B ' ! ;!# ?!' ? <D ;' * ' AB#>'
& AB#' #?' #B ' !>!# =' >' ?!' @#?D ;' * ' AB#>'
=>= ' > ; ' !8 88' =?# D ' ; @"?= ' DC# !B 88' D ' L
C@ 4' = ' #B # =' C @ # ?= ' = ' ?#B ;' '
@B' #B ' 0 E' ?;' #B ' A; < =# ?!' K ;# ' ; NC>; '
#?' D ' ?= ' E #B =' ' @ ;# =' ' #>< ' #B # #B ; =' #B '
' C=K;?! # D8 ' #>< ' C; =A' #B ' K @ ' !?; '
B 88' =?# D ' @?C=#

%' = =# <? =A' !;?<' 0 =

' ' (& *) &' 0 +' = ' 0 + ' = ' G '
#B ' &!# # ' ?!' / ;8 < =# ?= ; =A' #B ' =@?=9'
= =@>' ;> =A' !;?<' #B ' C=@ ;# =#>' ?!' #B '
;< ' ?!' EB #!C= >4' EB ; D>' #B ' *= C; =@ ' ?!'
#B ' #E?' ?; = ;' # ;< ' ?!' 2 B # ?= >' = ' J ;# 9'
< ! ' ' ? ' C= NC 884' = ' E8 #!?= >' ?!## < '
; @B =A' ! ;' =' (C< < ;' D>' #B ' <? =A' !;?<'
0 = ' #' #B # #>< ' #B ! ' EB?' ; <? ' ? ' # CK'
= ' #;?>' #B ' < ?E ' = ' B = ' A;?C= 5
$?;' < ' EB ; ?!' %B ;' * !# ' E #B' @?=! =#
?!' #B ' ' &!# # ' ?!' / ;8 < =# ? ' # #C# ' = '
?; = ' #B # #B ' C< < ;' = ' E =# ;' # ;< ' !8 ''
=' 88' #>< ' @?< =A' D ' #B ' !!>!# =#B' >' ?!' *(* >

' ' '*=B ' ' E >>)

= ' ;# < ! 5 = ' #B # #B ' 8 A 88 # ;< ' ?!' ; g
<? =A' D?#B' =' DC;AB' = ' 0 = E ; ' !8F 88 D ' #B '
' !>!# =#B' ' B >' CK?=' E != =A' !?C;#>' > '
K; @ =A' #B ' <

%' = =# K ; ?= ' " 88 ' =' #B ' 1 =A '
' ? #

' ' (& *) &' 0 +' Q 0 + ' %B '
1 =A' = ' 3C = ' !# ' ?= ; =A' B?E' = @ !g
;>' #' ' !?;' CKK?;#' = ' ! =@ ' ?!' #B ' A? ;=L
< =# #B # #B ' A?? ' !CD @# ' ?!' 88 =" ' =' #B '
1 =A ?< ' B W ; =A' #B ;' 8 ' =' < =# = =@ ' ?!'
#B ;' # ' C#B?; #>' Q) ? ;=< =# D ' C= ;'
=?' @?C; A < =# CK?=' @@?C=# ?!' #B ;' ! < 8 '
= ' @B 8 ; =' = ' 8 " E ' @?= ; =A' #B ' 8 C L
D8 ' K; @# ' ?!' #B # ?> 88 = !#?; ' =' #B ' #>< '
' ! <; A= ' ;' *=# # = ' E ;; ' %B ;' # '
E #B' >@ ' = ' @?= =# ?!' #B ' &!# # ' ?!' / ;8 L
< =#4 +? ' B ; D>' # #C# ' = ' ?; = ' #B # #B ' ; '
?;' ; ' ?!' C@B' ?!' #B ;' # ' !CD @# ' ?!' ,$-'
8< ' B?8 =A' #B ;' ?!' #B ;' # ' ?;' =>'
?#B ;' CK ; ?;' ' B 88 B ; !# ;' C; =A' #B ' K; L
=# E ;' D ' !8 = ' ?;' BC;# #?' #B ' #B' =' < 8 # ;>'
; @ ' E #B =' #B ;' # ' ?< = ?= ' =' ! =@ '
?!' #B ' / ;?# !# =# 8 A ?=' 0 E ' = ' 8 D ;# ' = '
#B ;' # ' ?> 88 C#B?; #>' 8B 88 D ' !; ' = '
; ' B ; D>' !#B ;A ' ?!' #B ' DC; =' = ' C# ' ?!'
2 ; ' ; 8 ! ' < ;; A ' = ' =?=' =#;>' ! =A' #B;?E'
#B ' ! ' ?!' =>' ?!' #B ;' !# ' !CD @# ' !C '
!8 = ' ?;' BC;#

%' = =# #B ' =#

\J ' (& *) &' 0 +' Q 0 + ' %B ' 8 *'
1 =A' = ' 3C = ' # ' = ' #B; ' &!# # ' ?!'
/ ;8 < =# ?= ; =A' #B # D>' #B ' @# ?!' / ;g
< =# ' !?;' ' !; ' ?>= A ' #B ; ' ' ?=8>' 89
8?E ' AB# =' KC= T (@?# ' CK?=' #B ' !#?= ' E AB#
?!' (8 ;' !?;' !; > =A' #B ' EB?8 ' @B ;A 4 E !# ' ,g
K =! ' = ' 8?!# CK?=' # ' @?>= A ' EB @B' 88?E =@ '
' !?C= ' D>' FK ; =@ ' #?' D ' #??' !< 8 = ' = C!! L
@ =#4 %8<; !?; ' %B ;' (8 !# ' E #B' >@ ' = '
@?= =# ?!' #B ' ' &!# # 4 +? ' B ; D>' !@ = ' B '
88 #>< ' @?< =A' #B # @8 C! ' ?!' #B ' !?; ' @#4
= ' !C;#B ; (# #C# ' = ' ?; = ' #B # #B ' # ;'
?!' #B ' =# B ' 88?E ' #?' B <' =' #>< ' ?< =A'
#E =#>' KC= ' (@?# ' =!# ' ?!' #B ' !# ' & AB# ='
KC= ' !@?# ' CK?=' #B ' #?= ' E AB# ?!' 8 ;' ' #B '
C!# = ' ; ?= D8 ' 88?E =@ ' !?;' !; > =A' #B ' '
@B ;A ' FK =! ' = ' 8?! ' CK?=' # ' @?>= A ' =' < =L
= ;' K;? > ' =' #B ' ' @#

%' = =# = # ; ' #B # B ' =?# K; > '
!?;' #B ' 1 =A' Q 3C =

% &' & # # ' ?!' / ;8 < =# # " =A' =#?' #B ;' '
?= ; # ?= ' #B # ; 88 < = # ; ' ' K;>' '
!?;' =?# K; > =A' KCD8 "8>' !?;' 1 =A' 2 88 <' = '
3C =' ;>' ' 1 =A' = ' 3C =' ?!' #B ' B= '
= ' =?# ; =A' #B ' K;?@8 < # ?=' ?!' #B ' &!# #

' ' '*=B ' ' %

%' !?;' ! @ ; #>' ?!' #B ' ; #?; ' ! 88 ||
Q'B ; ' ?!' &=# 8' ?!' K ; ?= ' !?; ! C8#

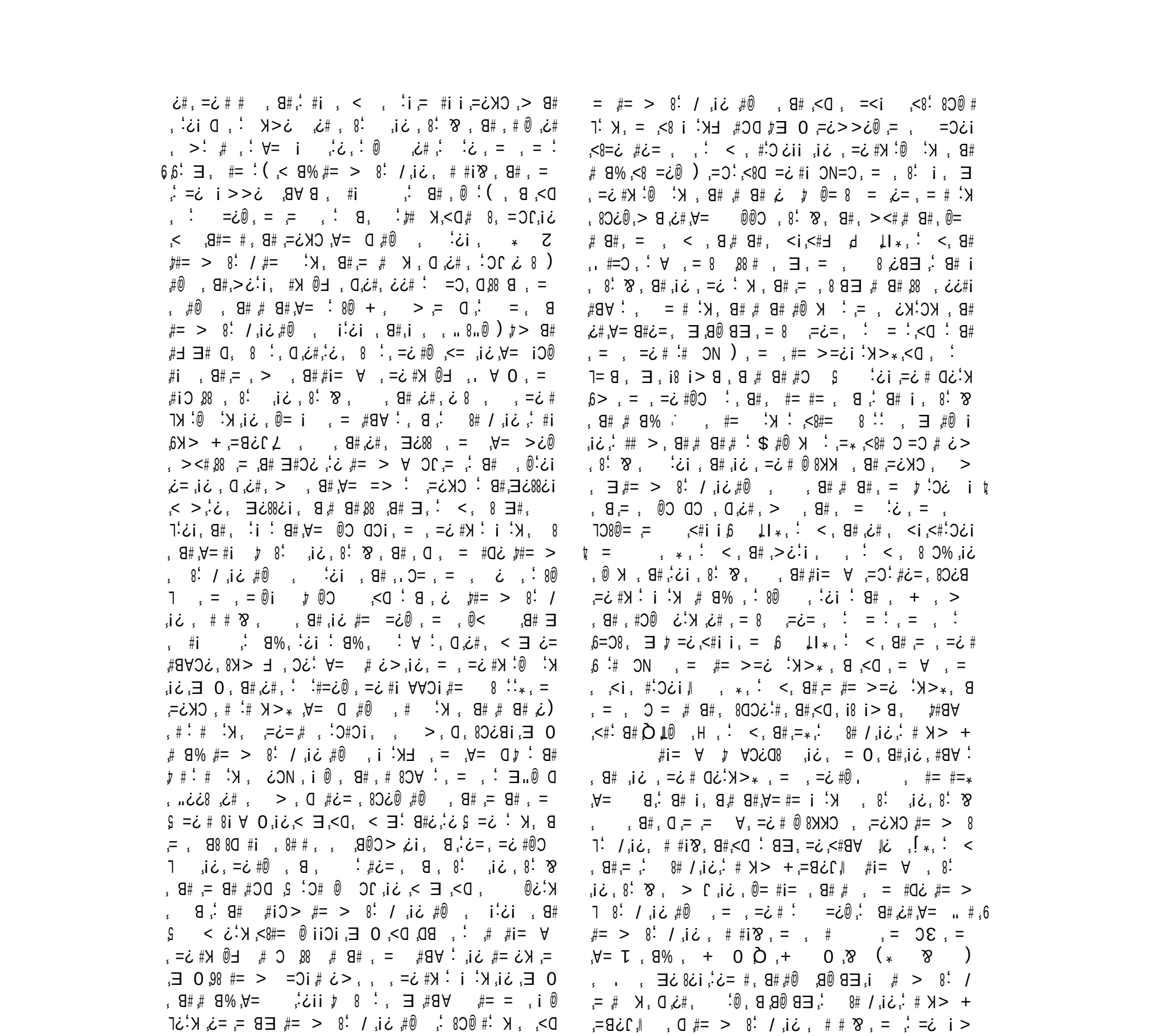
9<;' $ &9 (' ' ' <?=A #' ?#B ;' A; =@ ' ; L
K; =# || #?' #B ;' # ' EB ='#B ' ;?E= ' E '
= ; '#?' #B <4 !!?;! '8#C; ' ='K; C @ '?!' !L
88 ' ; #?; '?;' ; '?!' =# 8 'E ; '@?= @ = '
?=' ' ' A; #' A; =@ ' = ' #B #' #' ' C #' #B #'
;>' < =' C!! ;' !?;' B ' ?E= ' ! C8#' = ' =?# #B '
*==?@ =#' E #B' ?;' !?;' #B ' AC 8#>5 = ' #B #' C@B'
; AB# ' ' ; ' =?#' =' ' < = ' K?E ;' #?' 8 = # 'B>'
@?= =#' B?C8 ' =?# @?=! !@ # 'D>'B ' ;>< 5 %B ; 9'
'!?; '#B ' 1 =A' = ' 3C = ' # ' E #B' >@ '
= '@?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# '
= ' ; ='#B #'=?' ! ';! C8#C; ' B ; !# ;' !8 '' =>'
E > ' K; C A '#B ' % @"!< =' ; #?; ' CK ; ?; '
! 88 '?;' ; '?!' =# ' ' !# ;' < =# ?= '=?;' BC!9'
D = ' ?;' E> ' ?!' #B ' K ; ?= ' !?; ! C8# 4' DC#'
#B #' 88' # @" ' @8 ' E #B' K?! ! ?= ' D !?; ' @?<9'
=C## =A' ?!' #B ' %; ?= 'EB ; '#B '#; ?= ' '?K ='
= '=?#?C;' ?;' D !?; ' #B ' # # ?=' ='#B ' K;?@ (' ?!'
!?;! C8#C; ' EB ; '#B ' #; ?= ' ' 8 # =#' !8 88' L
! = ' A =!#' #B '!?;! C8#C; ' ?!' #B ' ! ## ;' B ' ; '
= '!C ! ?; 4' #B ' D# ' D =A' 8E > 'CK?='& 9'
@?; 'D>'D =A' & A !8; # ' ?;' 8 A =@ ' ?= ' #B ; L
CK?=4' = ' #B #' 88' &!# # ' !?; ! C8# ' !8 88' D '
CD @#' #?' 88' ; 88' @# ?= ' = ' < ' A = #' #B '
< 4' #B?' #B >' D '=?#' ; ! '=?;' =! !# ' ='E #B ='
#B '!> '> ; 'K; =A' #B '!?; ! C8#C; ' F@ K#L
=A' D>A?= ' ! E' E# ' ==C ' ; =#' = ' ?#B ;'
==C 88' K; # # ?= ' !?;' EB @B' #B ; ' ' =?' 8 L
A =@ ' ?= ' E #B ='!> ' > ; ' K; =A' #B '!?;L
! C8#C; ' = ' #B #' =?#E !B!# = =A' ?!' #B ' @?= '
@#' ?!' #B '=>=#B' / ;8 < =#' ?!' 1 =A' J < ' #B '
(F#B' EB @B' 'B ; D>' =' ? ' ! ;' ; @ = 4' = '#?'
88' #;C ' = ' 8 E!C88' ; #?; 'EB #B ;' K ; ?= 88' ?;'
; 88' !?;' #B ;' K; =@ K 86' ?C< ' 88 == ;8>' EB? '
D# ' = '@8 < ' ; '@?=#; @# ' = '!?C= 'K; ?;'
#?' #B ' @?<< ## =A' ?!' #B ' %; ?= ' EB ; ' #B '
%; ?= ' e' ?K =' = ' =?#?C;' ?;' K; ?;' #?' #B ' @ # L
?=' EB ; CK?=' #B ' !?; ! C8#C; ' K;?@ ' EB ; '
#B '%; ?= ' '8 # =#' &F@ K# =A' = ;!8 8 ! ' C@B'
D# ' ' ; '?;' B 88' D '@?=#; @# ' C; =A' #B '#><'
?!' ?K =' & D 88 ?=' = ' ;> =A' =' ;< ' EB @B'
D# ' B 88' D ' ='#B '8 < '@ ! ' 'D !?; '#B '< " 9'
=A' ?!' #B ' @#4' = ' #B #' !?;! C8# ' # # ' B 88'
8>" E ! ' D ' !CD @#' = ' 8> D8 ' #?' '' #B ' @ C 8 9'
' C '#?' #B ' CK ; ?;' #B ;' D !?; ' #B ' !?; ! C8L
#C; '?;'#B ; !# ;4' D>'?K = =A' #B '! 4' = '#B #4' ='
#B ' < ' < == ;' = ' E >' ' !' #B ' '# @" '
@# ?= ' D# ' = '@ C D# ' B ' D =' ##; 4'
@?=#; @# ' C ' = '@?=! ;< 'C= ;' #B 'A; #' 88'
D !?; ' @?<< ## =A' ?!' #B ' ;>< ' !?;' EB @B' #B '
!?; ! C8#C; ' ' C@ ' F@ K# =A' D>A?= ' ==C 86'
K; # # ?= ' ='< == ;' !?; ' = '#B #' #B ' CD 89'
;= ' ; ' ; AB# ' B?8 =' ?!' #B <' D>'#B ;' ! 88 '
EB #B ;' =' ! ' ?;' ='8 ! ; =#' = 'D>'EB # ;' C =9'
= ;' ?!' B?8 =A' B 88' =?' E >'D ' K; C A ' D>'#B

' ' %

!?; ! C8#C; ' ?!' #B ' CK ; ?;4' DC#' B 88' ; < = ' E #B'
#B ' ! 88 ' ='#B ' < =' < == ;' = ' E >' ' !' #B ;'
; AB# ' B ' D ='@?=! ;< 'C= ;' #B 'A; #' ! ' D 9'
!?'@?<< ## =A' ?!' #B ' ;>< ' !?;' EB @B' #B ' CK L
; ?;' E ' !?;! C8# ' = ' #B #' =?' ; ' ?!' =# 8 '
=' =! !#< =#' ?;' ?#B ;' ' !! @# ' E #B' K;?B L
D # ' ?;' ;; # =#' @8 C! ' =' @ ' ?!' @?=#; =# ?=' ?!'
#B 'K;? ?= '#B ; =' < =# ?= '8B 88' D 'K; C A '
D>'#B '!?; ! C8#C; ' ?!' B 'K; @ ! ?;' DC#' ?=8>' ='
?' ! ;' ' #B 'K ;# ' !?;! C8# ' B ' 8 D ;#>' #?' @?=L
#; @#' D#' ?;' !! @#' #B ' 8 = ' ?;' ?#B ; ' D ' #B '
NC 8 #>' ?!' #B ' ; AB#' = ' <! !#< =#4' = ' =' C '
! ;' '#B ' < ' = 'C= F ;@ 'D>'B 'K; @ ! ?;'
#B '#>< ' ?!' @?<< ## =A' ?!' #B ' #; ?=' EB ; '#B '
#; ?= ' ' ?K =' = ' =?#?C;' ?;' #B ' #>< ' ?!' #B '
@ # # ?= ' ='#B 'K;?@ ! ' ?!' !?;! C8#C; ' ?!' C@B' =L
# 8 ' !8 # 'EB ; '#B ' #; 8D=' '8 # =#' B 88' ?=8>'
B ' ; AB#' #?' !! @#' #B ' < ' ='#B ' < ' < == ;'
= 'E >' '#B 'K ;# ' !?;! C8# ' < AB#' B # ' ?= '
D>'#B ' # =?;' = 'NC 8 #>' ?!' #B ' ; AB#' = ' =! !#9'
< =#4' K;? > =A' #B ' AB#' ?!' % 8A 'D '; A !#; # '
@?=!?;< ' #?' #B ' @#' ?!' / ;8 < =#' ='#B ' > ; '
(5 = ' #B #' #B ' ' EB ; D>' #B ' !?;! '
! @C8#>' ' F ;@ 'D ' =! ;#' =' !?< 'KCD8 @"' 9'
A !# ;' ;'@?=#<= ' =' '@?=#; @#'?!' ;; A 5' = '
8>" E > ' #' '(# #C# ' = '?; = 4' #B #'=?'E ! '
B 88' D 'K; C A '?!'B ;'# ;@ '?!'8 = '=?;'?!' =>'
?D8 A < =# ' @?=@ ' ='B ;' ! ?C; 'D>'B ;'
?=#; @#'?!' < ;; A 'D>'#B '!?;! C8#C; ' ?!'B ;'BC#'
D = 4' =?;' =?' BC!8 = '!B 88' D 'K; C A '?!' #B '
@?C;# '?!' = 'D 8?=A =A' #?'B 'E ! '=?;' =>'
?D8 A< =# ' ='B '@?=#; @#'?!' ;; A '@?B '
='B '! ?C; 'D>'#B '!?;! C8#C; ' ?!'B '2 ! 5 C#
#B #'#B ' ' AB# ' = '?D8 A< =# 'D?#B' '#?'
BC D = ' = 'E> ' B 88' B '#B ;'!C88'!?;@ ' = '
!! @#' << #8 ' CK?=' #B ' \! ?8C# ?= ' ?!' #B '
;; A 4' = ' #B ;' 88 ' E #B' >@ ' = '
@?=! =#' !?;! ' @ = '#B #' @8 C! ' ?!' #B ' !?; '
@#' ?!' / ;8 < =#' ='#B ' > ; ' 5' EB ; D>' #'
' @8 ; ' #B #' B ' # @' B?C8 ' =?# D ' K; L
C A 'D>'#B #' @#' '#?' ?=! ! # ?= ' ?;' ?#B ;'
!>= ' '#B 'KC= B< =#' ?!' ;><

& *%' ?!' #B ' /;?@ ' ?!' %; !?=' #?' #B '
0?; '?!'JC # ; ;>

' ' (& *) &' 0 +' Q 0 + ' %B ' '
1 =A' = ' 3C = ' # ' E #B' >@ ' = ' ?=L
=#' ?!' #B ' & # # ' ?!' / ;8 < =#' ? ' < ##' #?'
#B ' ?<< ! ?=?; '?!'JC # @ ;>' =?< = # 'D>'#B ;'
'#B 'K;?@ ' ?!' %; ?= ' =# =# ' A =!85
#B ' =' D 88 ?=' A =!85 #B ;' # 'EB?' ; '
=?#' !?;! C8# 'D>'#B ' / ;8 < =#' #?' D ' !@C8 '
B>'#B <'CK?='#B ' <=<?= 'KC;!C ' D !?; ' #B '
/ ;8 < =#' EB @B' 'B ; D>' @8 ; '#?' D ' ' 9'
8 ' ' !'#B '!?; 'K ; ?= ' = ' 8" ' = '?!'#B <'
B 'D =' C<<?= 'D !?; '#B '! 'JC!85 @ ' ='#B '
! ;!#' =!# =@ ' = 'B ; D>' C#B?; W ' = '*<K?E ; '
#B ' 0?; ' ?!'JC!8 @ ; '#?' K;?@ '#?'!; ! C8#C;
. 0



%ʻ @ = =Aʻ #B ʻ $?;! #C; ʻ ?!ʻ ?D ;#
< 8#?=ʻ ?!ʻ ?="8 =

% !& %ʻ %B ʻ ; CAB# ?!ʻ #B ʻ @# ?!ʻ / ;8 < =#
C= ;E; ## =ʻ) =ʻ =ʻ = ʻ K; =# ʻ#?ʻ #B ;ʻ L
# ʻB ABʻ ?<< ! ?= ;ʻ = ʻ#B; ʻ& # # ʻ?!ʻ / ;L
8 < =#D>ʻ#B ʻ 8 @# = ʻ KK ; = ʻ ; ʻ?!ʻ#B ʻ 9ʻ
@ !# ?D ;# < '#?= ʻ?!ʻ C="8 = ʻ?!ʻ#B ʻEB @Bʻ
@# #B ʻ % =?;ʻ !?88?E ʻ ,J ʻ (& *) &ʻ
0 +ʻQʻ0 + ʻ %B ʻ 1 =Aʻ Qʻ 3C = ʻ # ʻ
Qʻ#B; ʻ& # # ʻ?!ʻ/ ;8 < =#ʻ B =Aʻ ?= ; ʻ
#B ʻ K;?@ ʻ ?!ʻ !?; ! C8#C; ʻ 8 ʻ A =!# #B ʻ @ !#
?D ;# < 8#?= ʻ ?!ʻ ?="8 = ʻ D !?; ʻ#B ʻ 0?; ʻ
?!ʻJC # @ ;>ʻ CK?=ʻ #B ʻ >ʻ ?!ʻJC8>ʻ .
E #Bʻ#B ʻ =# =@ ʻ = ʻ ??< ʻ?!ʻ!?; ! C8#C; ʻ#B ; L
?=ʻ K;?=?C=@ ʻ = ʻ#B # #B ʻ ʻ 0?; ʻ?!ʻ JC L
@ ;>ʻ ʻ ! = ʻ #ʻ; 8 =# #?ʻ =! ;ʻ #B ʻ @;>< ʻ?!ʻ
%; ?= ʻ A =!# #B ʻ ʻ @ !# ?D ;# < 8L
#?= ʻ %B # B ʻE ʻ # #B ʻ (B EB ʻ C ; ʻE #Bʻ#B ʻ
D 88 ʻEB =ʻ #B >ʻ E ; ʻ =ʻ ;< ʻ D !?; ʻ#B ;ʻ L
! # # ?#BE 88D; A ʻ = ʻE ʻ;> =Aʻ = ʻE 8" 9ʻ
=Aʻ <?=A!# #B <ʻ 8#B?CABʻ #ʻ E ʻ= #B ;ʻK;? =ʻ
=?;ʻ 88 A ʻ #B # B ʻ B <! 8! ʻ E ʻ =ʻ ;< ʻ = ʻ
#B # =ʻ !! @# B =Aʻ B ʻ 8 = ʻQʻ E 88 =Aʻ = ; ʻ
#?ʻ#B ʻ ʻK8 @ ʻ 8 ? ʻ#B # #B ʻ ʻ 0?; ʻB ʻ
!?C= ʻ #ʻ; 8 =# #B # B ʻ B ʻ @?= ; ʻE #Bʻ = ʻ
B ;D?C; ʻ = ʻ ; @ K# @ ;# = ʻ D ' ʻEB?ʻ #?ʻ B <ʻ
E ; ʻ =?##?C;8>ʻ C@B ʻ 8D # #ʻ E ʻ #B =ʻ @"=?EL
8 A ʻ =ʻ #B ʻ ?C;# #B # #B >ʻ E ; ʻ =?#ʻ =?;ʻ
B ʻD =ʻ 8 E!C88>ʻ =C=@ ʻ ʻ 8 " E ! ʻ #B # #B ʻ
!?; ʻ =# =@ ʻ = ʻ ??< ʻ ?!ʻ !?; ! C8#C; ʻ ʻ
K;?@ ʻ?=ʻ #B ʻK;?D # ?= ʻ ?=8>ʻ .ʻ %B # #B ʻ ʻ
@ !# ?D ;# ʻ @?=! ! ʻ C @ 88>ʻ #B # B ʻ E ʻ
# #B ʻ ʻ C ; ʻ E #Bʻ #B ʻ D ' ʻ = ʻ #B # B ʻ
Eʻ ?< ʻ?!ʻ#B <ʻ =ʻ ;< ʻ = ʻ #B # #B ; !# ;ʻ B ʻ
; @ K# ?< ʻ ?!ʻ #B ʻ K ; ?= ʻ < =# ?= ʻ =ʻ B ʻ
0>D ' ʻ?=ʻ B ʻ A;?C= ʻ ʻ % == =# ʻ ?;ʻ ; =# ʻ #?ʻ
% == =# ʻ = ʻ #B # 88ʻ #B ʻ PE #= ! ʻ C@ ʻ
A = # B <ʻ ? ʻ K;? ʻ =?ʻ <?; ʻ F@ K# #B # ?= ʻ
= ;>ʻ *=A ' ʻ ?#Bʻ ! ; ;ʻ K?= ʻ#B # #B ʻ ʻ L
@ !# ?D ;# < 8#?= ʻ ʻ #B =ʻ >ʻ #?ʻ B <ʻ #B #
B ʻ < AB# # " ʻ B ʻ EB # ʻ A; >ʻ B?;! ʻ !?;ʻ B ʻE?C8 ʻ
=?# A # 8 ʻ #?ʻ " Kʻ B <ʻ = ʻ B ʻ E ʻ A?? ʻ #?ʻ
D> ʻ ! ; ʻ EB @Bʻ E ; ʻDC# #; =! =# E?; ʻ ?!ʻ < 88ʻ
*< K?;#ʻ = ʻ ?=8>ʻ E #= ! ʻ D>ʻ ?= ʻ =A8 ʻ E #= !
= ʻ !C; ;ʻ @?= ; =Aʻ #B # #ʻ ʻ FK; ! 8>ʻ K;?9ʻ
> ʻ D>ʻ #B ʻ 8 < ʻ ?!ʻ AB# #B # #B ʻ @ C =Aʻ
!?; ! C8# = ʻ KC; C ʻ K ; ?= ʻ CK?=ʻ !; ?8?C ʻ = ʻ
E " ʻK; # =@ ʻ = ʻCK?=ʻ 8 < ʻ = ʻ ! @# ʻK;?L
D # ?= ʻ ʻ @?=#; ; ʻ#?ʻ 0 Eʻ = ʻ #B # 'ʻ C@Bʻ !?; 9ʻ
! C8#C; ʻ ?CAB# #?ʻ D ʻ @?= ; ʻ = ʻ #B ʻ K ;# ʻ
8 ! ʻ ; ; ! ʻ %B ;ʻ # ʻ = ʻ%B; ʻ& # # ʻ
?!ʻ / ;8 < =# B ʻ !?C= ʻ = ʻ B ; D>ʻ ! = ʻ #B ʻ 0
!?; ʻ K;?@ ʻ ?!ʻ !!D; ! C8#C; ʻ 8 ʻ A =!# #B ʻ
ʻ @ !# ?D ;# E #Bʻ #B ʻ =# =@ ʻ = ʻ ??< ʻ
?!ʻ !?; ! C8#C; ʻ #B ; ?=ʻ K;?=?C=@ ʻ #?ʻ B ʻ K;?L
@ ʻ CK?=ʻ !; ?8?C ʻ = ʻ E " ʻ K; # =@ ʻ = ʻ
CK?=ʻ 8 < ʻ = ʻ ! @# ʻ K;?D # ?= ʻ = ʻ %B ; 9

ʻ

C!! @ =# E ;; = ʻ C#ʻ K; C @ ʻ 8E > ʻ #?ʻ #B ʻ
ʻ & ;8 ʻ ?!ʻ 8 ' ʻ #?ʻ ; C@ ʻ#B ʻ !?; ʻ + 9ʻ
@; # ?!ʻ !?; ! C8#C; ʻ A =ʻ BA =!# B <ʻ CK?=ʻ #B ʻ
) ;?C= ʻ = ʻ ?= ʻ @?<K # =# #B ;ʻ =ʻ #B ʻ ?;ʻ
=>ʻ ! @@ =Aʻ / ;8 < =#4 = ʻ ? ʻ & ʻB ʻ>?Cʻ
B ;# 8>ʻ ! ; E 88ʻ) =ʻ # ?C;ʻ ?C;# ?!ʻ & = =A9ʻ
#?C=ʻ #B ʻ U7 >ʻ ?!ʻ JC= ʻ * 4 = ʻ ?!ʻ ?C;ʻ A= ʻ
#B ʻ @?= ʻ> ; 5
! ʻ!CB8@; B #C;

2 Z

%ʻ ?!ʻ + ! ?8C# ?=ʻ =ʻ ! ?; ʻ ?!ʻ #B ʻ & ;! ʻ
?!ʻ 8 '

ʻ % &ʻ & # # ʻ?!ʻ / ;8 < =# # " =Aʻ #?ʻ #B ;ʻ ?=9ʻ
; # ?= ʻ ʻ 0 ## ;ʻ C= ;ʻ B ʻ # ʻ ?> 88ʻ
B = ʻ ?!ʻ #B ʻ # ʻ #ʻ 1 = =A#?= ʻ #B ʻ !?C;#Bʻ >ʻ
?!ʻ JC= ʻ 8 #ʻ D>ʻ K #4 EB ; D>ʻ B ʻ #>ʻ C#B?L
; W ʻ#B ʻ ʻ& # # ʻ#?ʻ ! ?8 ʻ!;?<ʻ #B ʻ ;?E= ʻ
= ʻ K #; <?=>ʻ #B ; ?!ʻ #B ʻ 0 = ʻ = ʻ &!# # ʻ ?!ʻ
) ?;A ʻ & ;8 ʻ ?!ʻ 8 ' ʻ B ʻ # ʻ ?<< !9ʻ
?= ;ʻ !?;ʻ B?8 =Aʻ #B ʻ K; =#ʻ ! ?= ʻ?!ʻ #B ʻ C;L
; =#ʻ / ;8 < =#4 == F ʻ #B ; #?ʻ D>ʻ #B ʻ !?C;#>ʻ
@?= ʻ @#ʻ ?!ʻ #B ʻ / ;8 < =# @H AB#>ʻ ! ʻ
> ; 4 @?=!?;< ʻ#?ʻ ʻ @; # = ʻ =# =@ ʻ ?!ʻ !?; L
! C8#C; ʻ K;?=?C=@ ʻ A = # B <ʻ ?=ʻ #B ʻ d .H7ʻ
>9?!ʻ dJC= -ʻ =ʻ #B ʻ ! ʻ > ; 5ʻ A = # EB @Bʻ
=# =@ ʻ = ʻ @; # B ʻ ʻ=?Eʻ ; !8?; ʻK ;ʻ <? C<ʻ
C # # ʻD>ʻ = ʻ @#ʻ ?!ʻ #B ʻ K; =#ʻ / ;8 < =# ʻ
#?ʻ EB @Bʻ B ʻ # @ʻ B ʻ D =ʻ K8 ʻ #?ʻ @8 ; ʻ
=ʻ #B ʻ ʻ 0 ## ;ʻ B ʻ ?> 88ʻ KC;K? ʻ ?!ʻ A =Aʻ
D @"ʻ #?ʻ #B ʻ ʻ& ;8 ʻB ʻ ʻ0 = ʻ = ʻ& # # 4ʻ
=ʻ C ʻ ! ;ʻ ʻ B ʻ !# ʻ < AB# B ʻ K; # = ʻ
; AB# #B ; #?4 = ʻ?!ʻ*=# ;K? =Aʻ B ʻ ?> 'ʻ ! =#
#?ʻ #B ʻ @# ?!ʻ + ! ?8C# ?= ʻ#?ʻ D ʻ K ! ʻ #B ; CK?=ʻ
=ʻ < == ;ʻ !# ;< =# ?= ʻ%B ; !?; ʻ#B ʻ&!# # ʻ?!ʻ
/ ;8 < =#ʻ =ʻ ʻ C# !C 'ʻ @"=?E8 A < =# ?!ʻ B ʻ
!# ʻ C!# @ ʻ = ʻ ?> 88ʻ E 88ʻ @8 ; ʻ#?ʻ #B <ʻ
#B ; = =#ʻ +? ʻ D>ʻ #B ʻ # =?;ʻ B ;?!ʻ # #C# ʻ ?;9ʻ
= ʻ = ʻ @8 ; ʻ%B # #B ʻ 0 = ʻ = ʻ ;?= ʻ?!ʻ
?= < 8 4 #Bʻ = ʻ 8E ;>ʻ = ʻ?#B ; ʻD 8?=AL
=Aʻ #?ʻ #B ʻ ʻ& ;8 ʻ = ʻ == F ʻD>ʻ #B ʻ!?; ʻ
@# D ʻ + ! ?8 4 0 " ʻ#B >ʻB ; D>ʻ ; ʻ = ʻ B 'ʻ
D ʻ + ! ?8 ʻ !;?<ʻ #B ʻ ;?E= ʻ = ʻ / #; <?=>ʻ
#B ; ?!ʻ = ʻ!;?<ʻ #B ʻ ʻ @# = ʻ 'ʻ ?#B ;ʻ @# ʻ?!ʻ
== F # ?= 4 = ʻ !;?<ʻ 88ʻ @8 C! ʻ NC 8 # ʻ = ʻ
@?= # ?= ʻ#B ; =ʻ @?=# = ʻ =ʻ 88ʻ #>< ʻ @?< =Aʻ
0 " ʻ#B ʻ! ʻ &!# # ʻ C#B?; W ʻ #B ; #?ʻ ʻ ʻ
ʻ +? ʻ$ = 4 + @ ;= ʻ Q + @8 ; ʻ #B # #B ʻ @# ?!ʻ
+ ! ?8C# ?= ʻ !# 'ʻ =?# D ʻ C= ;!#?? ʻ #?ʻ ! 'ʻ C= ;ʻ
?;ʻ D ʻ @?<K; B = ʻ =ʻ =>ʻ @# (8 ?ʻ JC; ʻ #?ʻ D ʻ
K !# =ʻ #B ʻ ?;ʻ =>ʻ ?#B ;ʻ ! ! ?=ʻ ?!ʻ #B ʻ C;; =#
/ ;8 < =# DC# #B # #B ʻ ! < =ʻ ʻB ; D>ʻ FK; ! 8>ʻ
F@ K# ʻ#B ; !; ʻ =ʻ 88ʻ # < ʻ@?< =A

+"3-,32@
3%"7-'%7'
62Q"8+,'
"6' 2:3c
3+23"7'
27-73'31-'
5-/3' 875%-'
"9-,'1%.

%' (8 ?JC;

7"' ' 8' (& *) &' 0 +' Q 0 + ' %B
1 =A' = ' 3C = ' # ' # " =A'#?'@ ! ; 9
# ?= ' %B #' #B ; ' T'! ; 88' @#'?!' # ! @ # ?= '
' = ' ?#B ; ' K !#' = '< ' ='#B ' (! ?= '?!' / ;L
8 < =#' =' ! ?C; ' ?!' K ;# @C8 ;' K ; ?= ' E #B?C#'
@ & =A'?;'B ; =A'?!' C@B' ' < >'D '#B ; D>'@?=L
@ ;= ' ?;' K; C A ' %B ; !?; ' %B ;' !# '
E #B'#B ' >@ ' = '@?= =#'?!'#B '&!# # '?!' / ;L
8 < =#'(# #C# ' = ' ; = '%B #' &' C@B'K ;# @CL
8 ;' @# ' = ' @# '?!' # ! @ # ?= 'K #' ='; B == ;'
!?; ' B ''=?#K; C A ' =>'%B ; 'K ;# '?!'#B ;'
8 E!C88' ; AB# ' =?;'?!' #B ;' @# ?= ' = ' ! =@ '
@?<K # =#' #B ; CK?='D !?; ' #B ' #= B =A'?!' #B '
! 'K ;# @C8 ;' @# ' = ' @# '?!' # ! @ # ?= ' = '
#B #' #B ' 0?; ' ?!' ! ! ?=' = ' &' ?#B ;4' C A '?!'
' #B ' 1 =A ?< ' !8; &' D ' ?D8 A ' #?' JC A ' D L
#E F#' K ;# ' @@?; =A' #?' #B ;' ! ; 88' ; AB# '
= =A' ='#B ;' K ; ?= ' D !?; ' #B ' < " =A'?!'
#B ' ' @# ' !8' EB @B' ; ' B ; D>' FK?= ' = '
@8 ; ' #?' B 'D ='< ' (8 ?JC; ' C C!8 D #'
&F@ K# =A' 8E > '!;?<'#B 'K; ! =#' @#4' 88'!C@D'
@#'K !#' ='#B ' ! ?='?!' / ;& < =#' ' D>' = '
FK; !' 8 C!'#B ; =' ; ' @8 ; '#?D B ; !; '
F@ K#

@#?!
?C= 9
< =#

% &' 1*)' Q 3 ' && (' J&(%*&(' + L
@8 ; '#B ' / ;& < =#' C;; =#' = ' ?C;= '#B '
< '#?'#B '#B ; ' >'?!'(K# <D ;' = '?; = '
88' < <D ; '?!' / ;& < =#'#?' ## = '#B #' >' = '
#B #' #B ; 'D '=?' = E' &8 @# ?=' ?!' ?<< ! ?= ; '
!;?<' (B>; ' ?;' C;AB ' &F@ K#' CK?='#B ' #B'
?!' ?< '?!'#B 'K; ! =#' ?<< ! ?= ; 5' = ' 8!?'
F@ K# =A' !C@B' = E' &8 @# ?= ' ' ; '#?'D ' < '
D>'#B ! ' B ; 'EB?'D>' = ' @#' < ' ='#B ' / ;L
& < =#' ; ' &?E '#?'! = ' <?; ' ?<< ! ?= ; '
#B ='!?;< ;8>'#B >'E ; ' ='C! '#?' =

' +&' (&/%& *(4' ' + ' 4+ 4,

% &' % * +' (&((* ' ?!' #B ' $* (%'
/ 0* & %' ?!'?C;'<? #B AB' = '+; '
(? ; A= ' 2 *0 0* B#' +' ' D>'
#B '); @ '?!')? ' 1*)' Q' 3 ' && ' $'
(%0 +'&)0 +'$ &' +'
* &0 +' + ! = ; '?!'#B '! #B' ?8 ='Q'
AC=' #' & =DC;AB' CK?='#B '#B ; ' >'?!'
(K# <D ;'* ' @l' = ' >=# '> ; ' >') ?;A '
& ;8 '?!' 8 &8' @?C=#'?!' 1 ;" 8 4' 0?; '
#B4' ?= < 88'Q' 8E ; ' (?8 '(@; # ;'?!'
(# # '?!'#B ' ' 1 =A ?<'?!' (@?#8 = '%B ;'
# ' AB' ?<< ! ?= ;'?!'#B ;' C=@ =#'
1 =A ?<4' >' ;#C '?!'#B ' K @ &' ?<< ! ?= '
C= ;'#B ;' # '); #(88'E #B'#B ' >@ '
Q @?= =#'?!'#B '& # # '?!' / ;& < =#' C= ;'
E; ## =4' %B ; ' D =A' 8 ? 'K; =#'#B '?; = ; '
! @ ;'%B '+ KC# '?!'#B '0?; ' AB' ?= # D8 4'
= '& ;8 '?!' ; B &' (;'J?B=' 88'?!'+C=A8 '
0?; '/;? ? #'?!'& =DC;AB ' l' 2 & <' 8 ;9'
E?? 'Q' l' ;@BD 8 '(=@8 ;' (B ; !! '+ KC# '?!'
& =DC;AB'Q' + < # ;

%B ' & ;8 ' ?!' ; !C; ' /; =#' #?' #B
(! ?= '?!' / ;& < =#
'
+ ' 1&(
+C" '?!' < 8#?=

3 ' &((&('
J ;NC '?!'+?CA8

& 0&('
& ;8 '?!' ;A>8 '
(C#B ;8 = '
?;#?C= '
)8 =@ ;= '
&A8 =A#?= '
0?#B ='
<E #B'
0 ='
!!?;! ;

*(' %(
(# ;

0 +(
%?;KB @B =
C;AB8
!!?;; !# ;

' *=B

4 5 6
1C#B =
E ;!@

$$* & (' $' (% %&
0?; ' #B'%B +Kl KC# '
%B ' # ;'?!' C;AB8 '
8 ;" ' A !# ;'
%B '0?; ' ?@ # '
%B '0?; 'JC # @ ' 8 ;"

((& (' $ ' (&('
& =DC;AB
(;'J?B=' #8 = '?!' 8; A'
(;' 8 F = ;') 8= ? ;'?!' ; A< ' ;'
(;'J?B8 ' 8 ;" '?!'/ == @# " '
=A#?C=
%B '0 '?!'(# # ! ='
%B '0E '?!' ;< #?C='
(;'J?B='0 C ;'?!' !?C=# =B 88'
2 88 <' ?; ?='?!'/; #?=A; =A
;E @"
%B '0Y 8; '?!'0 =A#?CB' 8 ;'
%B '0 ; '?!'/?8E ;#'
(;'J?B=' C< '?!' 8 @ ;'
J?B=' (E =#?=' ?!'#B #' "
?FDC;AB
(;'J?B=' 88'?!'#B #'8 "
(8" ;"'

/ D8
%B '0 ; '?5!' 8 @"D ;;?=>
0 = ;"
%B '0 ; '?!'0 < =A#?C # '
2 88 <' + =B?8< '?!'2 8 B 8'
J < ' < 8#?= '?!' " =B
+C<!;
(;'J < 'J?B= #?='?!'2 # ;; E
2 A#?C=
;
7!8Q =@ ' ?=#A?< ; '?!') !81=
%B '0 ; '?!' ?E 88 =
?;' CAB' C=# ='?!'1 8D;>
+C<D ;#?=
C#
=!; E
(;'J?B=' FE 88'?!'/?88? "'
2 88 <' C= =AB < '?!' ; A = '
J?B=' 8 E 88'?!'#B #'8 "
(# ;8 =A
%?B=' ?E #?='>?C=A ;'?!'#B #'8 "
8 F' ?=;?'?!' ;@;?!#
8 F' K ;'?!'1 '@; CAB
0 =8 #BA?E
%B?< ' +;C<?= '?!' " ;#?='
/ #; @"' C;; >'?!'0 =A!#?=
/ ;#B
(;' ?8 = ' <KD 88'?!' D ;C@B8
<' +;C<<?= '?!' A =8B

%
1 =@ ; =
(;'%B?< ' C;= #'?!'0 >
D ; ='
*= < 8 '
+C=@ ='!!?;D '?!' C'? =
< '
%B '0 ; '?!'0?@B8?>
;?< ;#>'
+#0!-'
%B '0 ; '?!' C@B =D; @"
$!
2 88 <' = #;C#B ;'>?C=A ;'?!'#B #'*8"'
J?B='+ <K # ;'?!'/ #8 ;'
7'J < ' 8 ''?!' 8B<'
) ?;A ' @ !'?!'
$?;! ;
%B '0 ; '?!'+C=
<!!
(# C ;#='?!'1 ;"@C D; AB#
2 88 <') ?; ?=I'?!' ; A'
(C#B ;8 =
#B=
!#%7-
+S720
8 @"< == =
?!
(;'J?B=' ?=;? '?!'!!?C8
%7+"6,

((& (' & ' ') (
@'(;'J?B=' 88
& =DC;AB @ # 7A '(# ;8 =
?D ;#'(< #B
/ ; B CAB'1 == >
(# ;8 =
0 =8 #BA?E'
(7 = ; E '
)8 A?E'
;
=A#?C=
?;" 8
?=#;?
?CK ;
;C=# 88 =
4 *== ;" #B = 8 F'(K ##8
1 =AB?< /#; @"'2 88 @
*; = 'F 8 F' C= =AB <
J DC;AB
1 ;"@C D; AB#
(8" ;" 'J?B=' C;; >' '
0 = ;"
D ;D;?#B?@"

/ D8 J?B=' C ;'
% >= 2 88 <' ?! '
C8;?! If 2 Hf &; " 8 '
< J?B=' &?! '
&=!#;# 5B ;'E !# ; /' ?[8 8 = '
EA 88?E > If CAB' + B> BK8 '4
3C = ! ;; (;' 2 ' < 8#?= '
2 " /' ;@B ' (=@ ;'
(#; ; E ; (If / #; @"' C;; >

%' & + * ') 4

(&/%& & ' * 4' 4+ 4,

% &' ?88 ' ?!' / ;8 < =#' @ 88

&' ?<< !# ?=' K;? C@ ' !?;' (;' J?B=' ?< ' ! ?<< !4
?!' 8 @ ;' Q' J?B=' (E =#?= ' ?!' #B #' 8 " ' !?;' D 9'
=A' # ?= 88' ?<< ! ?= ; ' !?;' #B ' B>; ' ?!' E @"Q@ P'
;E @"5' = ' (E =#?= 'D =A' K; =#' #??" ' #B '
? #B' ?!' 88 A =@ ' = ' ! C; =@ 5' J < ' < 8#?='
?!' " =B ' 8!? ' #??" ' #B ' ? #B' ?!' 88 A =@ '
= ' ! C; =@ ' = 'D?#B' E ; ' < ## ' < <D ; ' ?!'
/ ; C= =#5' ' 8 ? ' ?< ' ?!' #B 'DC;;?E ' D! =#
#B 'K; @ =A' >' A= '#B ' ! C; =@

R 2+!-' "6' ; E!C; ' +-,-,0

% &' & ;8 ' ?!' ; C!C; ' E ' =?< = # ' D ' #B ;'
# ' B AB' ?< < ! ?= ;' /; ! ' #?' #B ' #B ; '
! ?=' ?!' #B ;' 8 # ('! ; #' / ;8 < =#4 EB?'
#??" 'B 'K8 @ ' @@?; =A8>

% &' ?88 '@ 88 'E #B?C#' #B ' # ?= 86' < <D ; '
!?;'-!% -

55%3%"72!' -%7/-+,' 42!!-5' D' 6,8+274-' ,8/,4+0Q-50

% & & $%& ' #B ' = E' # ?= 86' < <D ; '
= E8>' &8 @# ' EBD! ' ?=8< ! ?= 'E ; 'A =' ='
= '#B ;' = < ' =;?88 ' E ; ' ; ' ? ;4 .' !?;'
#B ' B>; ' ?!' & =D If (;' 8 F If) 8<? ; ' ?!' ; A9'
< 88 ;' Q' (;' J?B=' 8 ;" ' ?!' / == @C " 4' !8!?;' 9'
=A#?C= ' (;' J?B=' 0 C ;' ?!' *!?C=# =B 88' Q' 2 8L
8 <' 8?; ?= ' ?!' /; #?=A; =A 4' !?;' ?FDC;AB'
(;' 2 88 <' +?CA8 ' ?!' ; ' = ' (;' J?B=' L
88' ?!' #B #' 8 " 4' !!?;' 0 = ;" ' 2 88 <' + =B?8< '
?!' 2 !# B 88 ' = ' J < ' < 8#?= ' ?!' " =9'
B 4' ! D;' ; '%B '0 ; ' ?!' ?E 88 = ' = ' ?;'
CAB' =# =' ?!' 1 88D;> 4' !!?;' =!; E' J?B='
8 E 88' ?!' #B #' *8"4' !!?;' / ;#B' (;' ?88 =' <KL
D 88' ?!' D ;C@B8 ' = ' <' +;C< <?= ' ?!' A9'
= B4' !!?;' !!>! ' If J < ' 8 8 '' ?!' 88B 88' Q'
) ?;A ' ?=@; ! ' ?!' 4' !?;' 1 ;"@C D;CAB'
2 88 <')?; ?=' ?!' ; A' '' EB @B' ?< < ! ?=9'
; ' F@ K#' J < ' < 8#?= ' ?!' " =B ' XD =A'
=?# #B =' K; =#' E?; ' = ' A= ' #B ' #B' ?!'
88 A =@ ' = ' E ; ' < ## ' < <D ; ' ?!' / ;L
8 < =#' %B ; !# ;' #B ' ;# ! @ # ' = ' ! C; =@ '
= ?>= 'D>' = ' @# ?!' #B '8 !# ! ?= ' ?!' / ;8 L
< =# #?' D ' # " =' D>' 88' K ; ?= ' =' KCD8 @"' #;C!#
E ';' 4' = ' #B ' @# #' 8! ' 8 ?' E ';' = '
#B 'B 86' < <D ; ' ?!' / ;8 < =#' D?#B' ?8 ' = '= E'
?= 86' < <D ; ' #B =' K; =#' CD @;> '#B '
! C; =@ ' CK?=' #B; ' ! ; 88' K K ; ' ?= ' !?;' #B '
?D 8 #>4' ?= ' !?;' #B ' ;?= ' = ' ?= ' !?;' #B '
C;;?E

R " . . %6@ ,%"7-+' 6"+' -9#2 ' !"9200

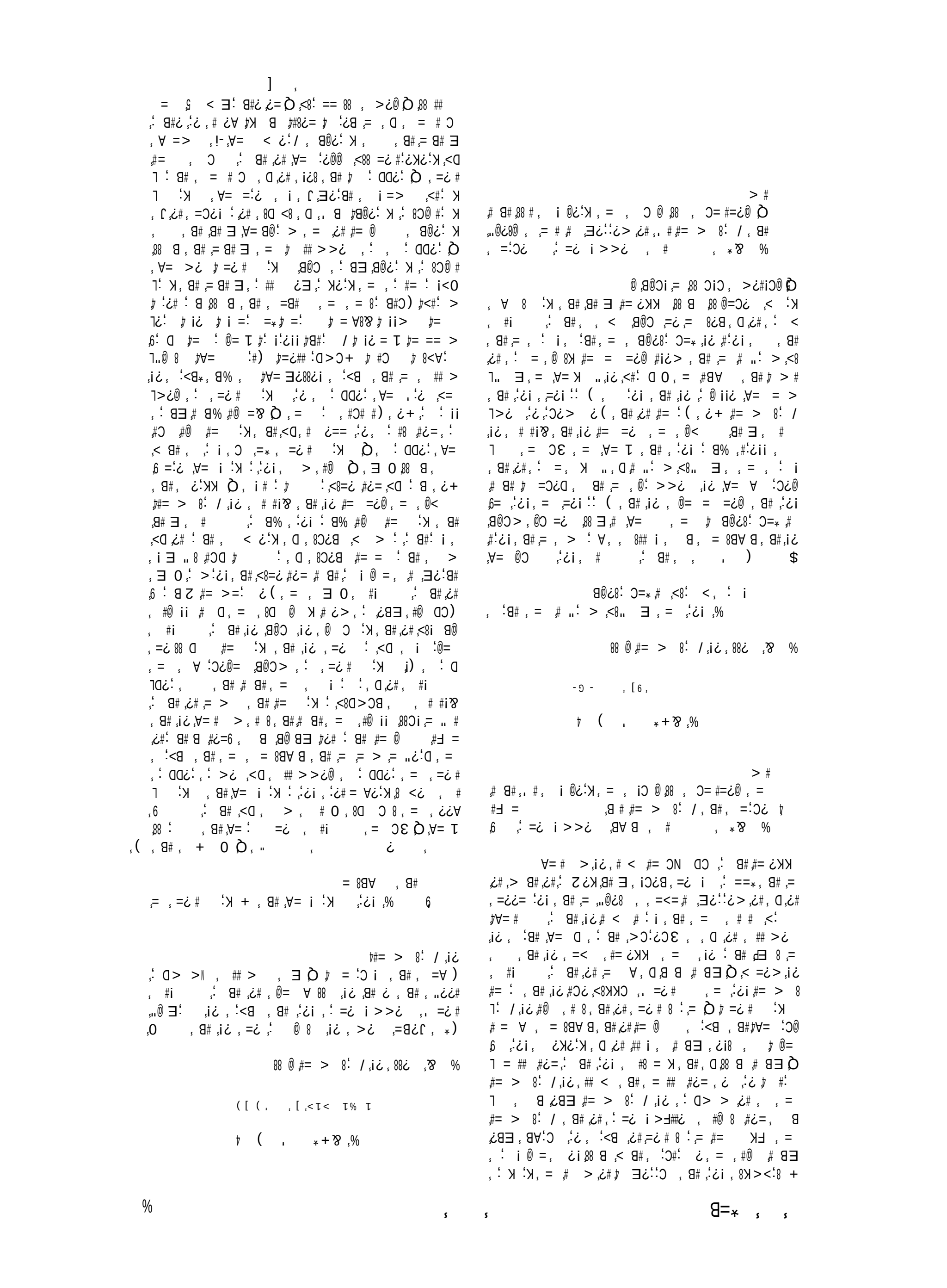
If CAB' + 8;><K8 ' ?@ # ' K;? C@ ' B '
?<< ! ?= ' !?;' #B ' DC;AB' ?!' EA 88?E >' ='
K8 @ ' ?!' J < ')?; ?=' ?!' ; @B8 >' @ !#4' EB?'
E?; '#B ' 88 A =@ 4' Q' A= '#B ' < 'E #B' #B '
! C; =@ ' = ' E ' < ## ' ' < <D ;' ?!' / ;8 L
< =#

% &* ' 8 # ' ?<< ! ?= ;' ?C< '
#B ' / ;8 < =# # 88' #?' <?;;?E' #' # =' ' 8?@"'
= ' ?=# =C ' 88' @ C ' = 'K;? ! '# 88' #B #
#>< ' *

% &* ' # ' B AB' ?<< ! ?= ;' = ' #B '
&!# # ' ?!' / ;8 < =#4' +? ' ?< = # ' = ' KK? =#
#B ' +C" ' ?!' < 8#?= ' %B ' & ;8 '?!' ;A>8 ' Q'
0 =' %B ' !@?C=#' ?!' (# ;' Q' #B ' 0?; ' C#B ='
!?;' #B ' ?D 8 #>' (;' ?88 =' <KD 88' ?!' D ;C@8 8 4'
(;' J?B=' 0 C ;' ?!' $?C=# =B 88' (;' / #; @"'
C< ' ?!' /?8E ;#4' +C=@ =' !!?;D ' ?!' ?88? =4'
= ' ?;' CAB' C=# =' ?!' 1 8D;> ' !?;' #B '
;;?= 4' = ' (;' J?B=' 88' (;' 2 j' < 8#?= '
(;' / #; @"' 8C;; >' 8 F If (K ## 88' = ' *If CAB

: 43,'3"' /-' :+-:2+-5

-6-+-74-' 3"' 2' " . . %33%-' 6"+' :+-:2+-@ %7#' 43,' %7 -!23%"7-' 3"' 10+-,' 275' 8+#1,



%' A = # ?DD =A' ?!'#B ' / @NC B

& %' %B ' K # # ?= ') =' =' = ' K; =# ' U' C=#?' B '); @ ' %B ;' # ' B AB' ?<< ! ?= ;' = ' #B ' B?=?C; D8 ' &!# # ' ?!' / ;8 < =# ' (;' 8 F = ;' ?K ' ?!' 1 ;! ' (B E =A' %B # EB ; ' #B ' K # # ?= ; ') ; = ! #B ;' B =A' > ' ; #?;' #?' #B ' KCD8 @"' =' #B ' ?C< ' ?!' ! !# =' #B?C = 'KC= ' (@?# 4 ; 88>' = ' #;C 8>' =@ ' D>' B <' =' K @ ' ?C# ?!' W 8 '#?' #B ' KCD8 @"' ; @ ' #B ' ?< < ##

?!'& # # ' ' KK? =#K >< =## ?'D ' < '#?'#B ' %C#?; '?!'B ' B 8 ; ='?C#?!'#B ' D# ' C '#?'#B ' & ;8 ' ?!' ; <!?; ' EB?'#B =' #?? ' !?; ! C8# 5' = ' @@?; =A8>'#B '%C#?; ' =#;?< ## 'E #B'#B ' <?= >'#B ' ?<< ! ;>') = ; 8'A; =# =A'#B ' L @B ;A 4 *='EB @B'#; = @# ?='1 ;!'B '=?'D = 9' ! # 'DC##B 'K >< =# ?!' ' C!# = '; '' D# C# A =!##B ' !!?; ! C8#C; ' #B ' & ;8 ' ?!' ; <!?; ' D =A'; #?; '*='#B '/ ;8 < =# ' = '#B ' FL #; @##B ; ?!'E ' CK ;@ '# 88'#B '> ; ' 5' >' ' E' @# ='#B ' / ;8 < =# V '#B '*=#;?9' < ##?; 'E #B'#B '!?; ! C8# ' ?C< 'E ; ' K8 ; ' > D8 '#?'; K # 4 = '#B '@ 'E '; < ## '#?'#B ' JC A ' ; = ;>'#?'D ' !@C! 4 ; =A'#?'#B ' *=#;?< ##?; ' 88'#B ;' ! =@ 5' = '#B ' ; '?!' #B '& ; '?!' ; <!?; 'B =A' =! !# 'D !?; '#B ' 0?; '?!' ! ?= 4%B ;'0?; B K 'C A =A'#B <L 8 'K; < # 'D>'#B ' @#?!'/ ;8 < =#; #?;L =A' ; <!?; ' ' <? C<' C!# # ' K !# =# =@ ' A =!##B 'K # # ?= ;' ! #B ;4 =?# ?=8>'!?;'#B ' K; = K 88' ?C< 'DC#!?;' K # # ?= '?!' 88'#B ' =9' =C 8; =# ' = ' !# ;'#B 'K # # ?= ; '! #B ; ' @ ! 4 #B ; 'E '; @? ; ' ' @?= ' + @; # A =!##B ' K # # ?= ;' ='B ' < =?; #>' @ C<C8 # =A'#B ' ' ==C 8; =# ' =' 'K; =@ K 86' C<< ' !# ;'#B ' <?!# K ;# ?!'#B 'K; =@ K ''E 'K > 4 8D ##B ; 'E ' =?' ?8C=# ;>'#; = @# ?= ' #B ;'D>'#B ' / # # ?=L ; '! #B ;' ?;'B <! 8! ' = =##B ' D#4 ?=8>'K ;# 88' K >< =# 'E ; ' < '#?'K; =##B '; A?C;'?!' 8 L A =@ 4 = '#B ' ! B ;A ' ' ,K; !8>'D ; '#B ## B 'K >< =# 'E ; ' ='K ;#?!'#B 'K; =@ K 865' m ' =A'#B 'K # # ?= ;' < >'C #8>'@8 < ' ' B ; ' =' #B ' D = !# ' #B ' EB?8 ' " =A ?< I' B ' ; @ ' D>'#B 'B KK>' ?8C# ?= ' ='#B '1 ; ! '?!'#B ' B ' C!#' = ' = CKK?;# D8 '); =@ 4 *#' '%B ; L !?; ' C<D8>' K; =# '#?'B '); @ ' ' L # ' AB' ?<< ! ?= ;' = '#B 'B?=?C; D8 ' &!# # '?!' / ;8 < =#4 /; < '%B # #B '*=#;?< !9' ?= '< 'D>'#B '%C#?; '?!'#B 'K # ! ?= ; '! #B ;' 2 '=?#); #C #?C '?;'0C@; # 4 DC#!?;'K >< =# ?!' ' 88' = 'JC #' D#5 = 'EB # ;'0 E'B ' # ;< = ' ='K? =#?!' K # # ?= ' A = #0C@; L # ' ?= #?; 4 > # *=#;?< ! ?= '!?;' NC 8 =# ?= ;?C ' C 4 = 'D>' ;#C '?!' '0 A 88' # #8 4 B '= ;'D ='@ 88 ' ='NC # ?= 4 SH 8#B?CAB' #B '%C#?; '?!'1 ;!' '; @ '#B ' <?= >7!;?<'#B ' D #?; '?!' ; <!?; ' > # #' '#?'D 'C= ; #?? 4 ' !' #B 'D ='@#C 88>'; @ 'D>'#B <'?C#?!'#B ' %B ! C;>'K ;' ! @# ?= <'D; ' < =C ' = 'C 8< ' K; C<K# ?= I' ='0 E4 D>'EB @B'#B ') = ; 8' ?= 9' < ! ;>4 EB?'A; =# '#B ' !@B ;A 4 ' = '?CAB# #?'D 'C= ; #?? 'B <! 8! '#?'B ' ; @ '#B ' <?= >'!;?<'#B 'KCD8 @"'5 = ' !# ;E ; '#?'B ' 8 ; ' #'#?'#B ;' ; #?; 5 .7H'%B 'K; # = ');?C= '?!'#B ' !# #C# ?='; ?8 ' ='#B #' @# ?=I' EB @B' '@ 88 ' ='0 E' ?= @# ?'*= D #'EB @B' @ ==?## " 'K8 @' ='#B 'K # # ?= ; '@ 7 !?;'#' ' "=?E= ' = 'C=@?=#; ;# 'K; =@ K8 ' C88 ' #' ; K # # ?' D' ?'NC ' CC<'; @ K#' !?;' 8D ##B 'K ;L ?=I'EB?'K > 'B ' ' C!#' F@ K# ?= 4 #B ;'@?<L K # =# #B ' # < ' ?;' ; ! BA' #B ; !# ;4 EB @B' @?C8 ' 8 ' #B ' D#5' > #C=8 !'#B #&F@ K# ?= ' E ; 'K; @ 8>'@?<K # =# A =!## B 'K ; ?=I'EB?' 0; @ 'K >< =# #'@ ==?#K; C A '#B ' ; @ ;4 !!?;' = # =@ 4 = ' ;; # ;'KC; C ' '!C;#B@?< 9' =A4 = ' =!#;C@#'#B ' D# D>'K;? C@# ?='?!'B ' D?= 'EB?' ! = ' ='#B '!C;#B@?< =A5 = 'CK9' K? =A'#B ##B 'K ; ?=I'KC; C ' ='#B '!C;#BL @?< =A'B ' ' @B ;A 'DC# @ ==?#K;? C@ '#44' #B '<?= >'E 88' D ' @ ;= ' #?'D ' < '!C;#BL @?< =A'5 C# !' !# ;E ; '#B '+ @B ;A '?!'#B ' D# B?C8 'D '!?C= 4 8D ##B ' D #?;'@ ='B ' ; K # # ?= ' A =!# B 'K;?K ;' ; #?;4 > # B ' @?C8 '= ;'!?C= ' = ' @# ?='A =!##B ' ;; !# ;4 NC ' CC<' # =#C<'; @ K #5 C #' ? '#B ' @#?!' / ;8 < =# #?; =A'#B '& ;8 '?!' ; <!?; '< >' '!?C= ' ' K # # ?= ' A =!# #B 'KCD8 @"' EB?'E ' K; =@ K 88>'#B ' ; #?;4 DC# = ;' A =!# 1 ;!' EB?'E ' C #8>' ; #?;'#?'#B 'KCD8 @"4 # CC<' # =#C<'; @ K #2 <Q *#' ' = 'C=@?=#;? ;# 'K; =L @K8 ' ='0 E4 %B #D?= '! 'K?! ! ?;'! @ #!;C@#C ' @?= C<K#?' C? 5 = '#B?CAB'#B ' @#?!' !# 9' #C# ?= ' B?C8 '*<K?;# K >< =# ?!'#B 'K; =@ K '' > # #@ ='= ;' F# = '#?'; K # # ?= '?!' ==C '9' ; =#'EB @B' ' ' ;'; #C< '#?' 'K ; ?= ';9' @ =A'K >< =# ?!' ' C!# D#4 @?=#; @# '?C# ?!' W 8'#?'#B ' 8 A ?= ' = '0 D ;#>'?!'#B ' # ?= 4 *='EB @B'#B 'K # # ?= ; 'K; @ ! ?; 'B 'D =' ; KC# ' A= 88>' =@ ; ' = '#B >'B ' =?' @ !9' ?='#?'#B '!?; ! C8#C; 4 = '#B '# #8 'E ' =' C=9' NC !# ?= D8 ' AB#' #B '# < 5' = '#B ; !?; ' #B ' @ ' ? ' K @ 88>'; NC ; '#?'D ' ?= ; ' D>'B ' !# 'B AB' ?<< ! ?= ;' = '& # # '?!' / ;8 < =# EB?' ?=8>'@ ='KC#; < >'#?'#B ' @#?!' # #C# ?= ' = ' @; #'!?88?E =A'#B ; CK?=' (? ' #?'K; ; ' #B 'K # # ?= ; '! < 8>'!;?<' < = ' = ' #' 8 !# #?' 2D8 ' #B 'K # # ?= ;' !;?<'K >< =# ?!' =>' ==C 88; =# 'K; @ =A'#B ' > ; ' V ' #EB @B' #>< ' #B '*=#;?< ##?; 'E ; ' @8 ; '*> D8 '%B ; !?; ' ; =A' #' < AB# K8 ' B '); @ 4 B ' # 'B AB' ?<< ! @ ;' = ' #B ' ?=?C; D8 '& # # '?!'/ ;8 < =#4 #?'# " '#B ' K # # ?= ; '@ ' =#?'#B ;' ; ?C ' @?= ; # ?=I' = '#?'); =#E ;; = '#?'@ # '#B ' K; =# # ' ?!'#B '& ;8 '?!' ; <!?; 'D !?; '#B '/ ;8 < =# ?;' =>' (< ## ' KK? =# '!?;'!>= ' = '!?; ! C89' #C; ' = '#?' < ##'#B '@ '#?'#B <' ='?; ;'#?9' '!C ''B ; =A' = ' '! ;' = ' NC 88' @ ?= ' '#B ' 'K # # ?=I' =' #' 8! ' #'8 =A#B'D ; ' 2 B @B' / # # ?=I' =A' ' = 'B ; ' ='K; =@ '?!' #B ;' !# 'B AB' ?<< ! ?= ;' = '#B '! ' &!# # '?!'/ ;8 < =#%B >') ; =# ' = ' ?'B ; L D>') ; =#E ;; = '#?' < @ ; '?;'< ! =A ; '#?'@ # ' #B ' ' K; =# # ' '#B '& ;8 '?!' ; <!?; ' #?' KK ; I' #B ;' D !?; '#B '/ ;8 < =# ?;' @?<9' < ! ?=' KK? =# '!?;'!>= ' = '!?;T! C8#C; ' # #B 'K # # ?= ; '?K# ?= CK?='! !# B' > 'E ;=I9' =A'#?' =!E ; '#?'#B ' D? 'E; ## =' : -3%3%"7,'E #B' ;# ! # ?=

?!' %E 8 ' BC= ; #B' KC= ' @?# ' & @B' ?<< !9
?= ;' !?;' ' B>; ' #?' #B ' ?C< ' ?!' (F' BC= ; #B'
KC= ' @?# 4 = ' @B' ?<< ! ?= ;' !?;' ' C;;?E'
#?' #B ' !?C< ' ?!' %E?' BC= ; #B' KC= ' !@?# ' = '
#B #' E #B?C#' K; C @ ' ?!' EB #' !C;#B ;' = C; '
#B ' $;1 < =#' B 88' #B =" ' ! ##' #?' =!8 @#4' = ' D>'
#B ' @#' !?;' ##8 =A' #B ' ?; ; ' =' #B ' / ;8 < =#'
B?C! ' ?!' #B ' < ' # 4' *#' ' KK? =# ' #B #' 88'
< <D ; ' ?!' / ;8 < =#' ? ' K; @ 8>' " K' #B '
> ## ' ?!' / ;8 < =#' C= ;' #B ' K = ' !?88?E =A'
*' & @B' =?D8 < =' !?;' & @B' > # ' D! =@ ' E #BL
?C#' 8 ' %E 8 ' KC= ' @?# ' & @B' ;;?=' F'
K?C= ' = ' @B' C;A ' %B; ' KC= 5' = ' #B #'
#B >'K >' #B ' C!85' B 8! ' ?!' #B ;' K = 8# ' !?;' @B'
> #' #B >' @?< ' =' ;?' !# ;' #B ' 88 =A' ?!' #B '
/ ?88 ' ?!' / ;8 < =#' %B ; !?; ' %B ;' !85 ' E #B'
>>@ ' = ' @?=! =#' ?!' #B ' &!8 # ' ?!' / ;8 < =#'
? ' B ; D>' # ! ' =# 4' @?=! ;< ' = ' KK;? '
#B ' !?; ' K = 8# ' @?=# = ' =' #B ' #E?' !?; '
@# ' ?!' / ;8 < =#4' A =!85' 2 =# ' !;?<' #B ' / ;L
8 < =#' = ' A =!#' D! =# ' !;?<' #B ' ; K @# '
> # ' #B ; ?!4' ?;' A =!8Z @?< =A' =' ; ' #B ; #?'
!# ;' #B ' @ 88 =A' ?!' #B ' ?88 ' ?!' / ;8 < =#5 = 4'
? ' !C;#B ;' F# = ' #B ' ! < ' A =!#' D! =# ' !;?<'
#B ' ?= =# ?= ' ?!' #B ' &!# # 4' = ' @8 ; ' #B #'
#B >'#B 88' D ' ; KC# ' ' D! =# ' !;?<' #B ' / ;8 < =#'
?;' ?= =# ?= ' = ' 8> D8 ' #?' #B ' K = 8# ' #B ; ?!'
EB?' ; ' D! =# #' #B ' !8;!# >' ?!' #B ' / ;8 < =#'
= ' ?= =# ?= 4' #B ' ! ' < <D ;' D =A' E #B ='
#B ' " =A ?< ' !?;' #B ' #>< ' = ' =?# B =A' ' ; 4'
?= D8 ' F@C ' ?!' B ' D! =@ ' = ' ?; = ' #B '
' @# ' #?' D ' KC# ='&F @C# ?= 5' = ' #B ;' 9'
' E #B' >@ ' = ' @?= =#!?; ' KK? =# #B '
@ ;') = ; 8' ?!' #B ' ;?E= ' =# ' = ' L
C 8# ' !?;' #B ' #>< ' #?' @?88 @#' = ' CK8 !# #B ' ; L
K @# ' K = 8# ' ?!' #B ' D! =# ' !;?<' #B ' / ;8 L
< =#' ;' ?= =# ?= ' @@?; =A' #?' ' 0 !# #?' D '
A =' = ' !CD!@; 'D ' #B ' 8 ;" 5' = '?; = '
B?;= =A' #' #B ' =!# =@ ' ?!' #B ' ') = ; '; @ ;'
#?' K ! ' ' K?=' ! !# =' > ' = ' 88' ?#B ;' &F @C# ?= '
@?<K # =#' !?;' =D; =A =A' ?!' #B ' ;?E= I' =# '
= ' C 8# 5' = ' ; = ' #B ' 8 ;" ' ?!' (#'
?= ' (KC# ' #?' #B ' 8 ;"' ?!' A !# ;' =' / ;8 L
< =#' #?' < " ' (;C=# ' ?!' @B' > #' ?!' / ;8 L
< =#' ?;' ?= =# ?= 4' = ' < ;" ' #B ' EB?' ; '
D! =#5' = ' #B #' #B >' ?;' =>' K ; ?= ' #?' D ' KL
K? =# 'D>' #B <' F @#' #B ' !?; < 'K = 8# ' ?!' #B '
D! =# ' !;?<' #B ' K ;# @C8 ;' > # ' = ' KK8>' #B '
< ' #?' #B ;' DE= ' C ' !?;' #B ;' K = ' =' < " =A'
#B ' >8>' @! ;C=# ' @?=!?;< ' #?' #B ' @#' = '
#B #' #B ' 8 ;" ' ?!' A !85 ;' A ' ;# ! @ # ' #?' #B '
?<< ! ?= ; ' !?;' (B>; ' = ' C;;?E ' ?!' #B ;'
= =@ ' =' / ;8 < =#' EB?' ; NC ; ' #B ' '
!?;' F @# =A' @#!' #B ;' ! ' !;?<' #B ' B>; ' = '
DC;;?E ' EB @B' #B >' ? '; K; =#' @?=!?;< ' #?' #B '
' (;C=# ' = ' ?; = ' #B ' K; =#' @#' #?'
D ' K; =# ' = ' KCD8 8B ' #' #B ' < ;@ #' ;?! ' ?!'
& =DC;AB' #B #' =?= ' < >' K; # = ' *A=?; =@

%' KK? =# =A' #B ' ?<< ! ?= ; ' ?!'
(CKK8>' #?' < #' #' #B ' @B 8< ' B '
|| ?C;#

$ (' ' '#B '& # # '?!' / ;8 < =#' B ' '
) ; =# '#?' #B ;' # ' ' = E' (CKK8>' ?!' %E?'
BC= ; #B' = ' F# ='#B?C = 'KC= ' F# = =A'#?'
%B; ' ?= #B ' ! '#?' D ' CK8 !# ' #' ;# < '
= F#4' ? ;' = ' D? '%E?' ?= #B ' ! ' KK? =# '
D>' = ' @#' ?!' #B ' 8 !85 ! ! ?' ' ?!' #B ' / ;8 < =#'
#?' D 'K > ' #' #B ' '# ;< ' %B ; !?; ' %B ' 1 =A'
= ' 3C = ' !# ' = ' #B ' &!# # ' ?!' / ;8 L
< =#4' ? ' ; = ' #B ' ?<< ! ?= ; ' ?!' CKK8>'
='#B ' ; 88' B>; '?!'#B ' " =A ?< ' #' #B '= F#'
@B 8< ' B ' ?C;#' #?' < #' = '#?' ?; ;' #B '
! '#B; ' ?= #B ' ! '#?' D ' ?88 @# ' E #B' #B '
#E?' ?= #B ' ! '!?;< ;8>' *<K?! ' = ' KK? =#L
'#?' D 'K > ' #' ;# < ' = F#' E #B' K?E ;'#?'
#B ' (' ?<< ! ?= ; ' #?' KK? =#' #B ;' CD 9' '
NC =#' > # ' ?!' < # =A' = '#?' # " ' #B ' < '
@?C; ' !?;' 8 ! =A' = ' =D; =A =A' ?!' #B ' CKK8>'
' !?;' #B ' CKK8>' !?;< ;8>' A; =# ' = ' ; = '
#B ;' K; =#' #?' D \' K; =# ' = ' K; =# ' @?K '
#B ; ?!' #?' D ' =#' #?' #B ' B ; !! ' 8 ;" ' ?!' #B '
! ; 88' B>; ' #?' D ' =# < # ' D>' #B <' #?' #B '
?<< ! ?= ; ' ?!' CKK8>' #' #B '= F#' @B 8< '
B ' ?C;#

%' !?;' &8 @# =A' ^8 # ?= 88' ?<< !L
?= ; ' =' ?< ' (B>;

3 ' @ ' ' A 8 * * 4 .' J& (%*& (' = ' '
#B ' &!# # ' ?!' / ;8 < =#' D =A' =!?;< ' #B #'
?< ' ?!' #B ' B>; ' EB?' D>' = ' @#' ?!' #B ' 8 !#
8 ?= ' ?!' #B ' / ;8 < =#' E ; '?; = '#?' '
?<< ! ?= ; '#?' #8 ;'!?;< ;'; K; =# # ?= 'B '
=?#' < ' =>' =< ' &8 @# ?= ' ?!' ?<< ! ?= ; '#?'
#B ' / ;8 < =#4' '%B ' B>; '?!'+C<!; ' D ;9'
= 4' !!?;! ;' = ' ;A>8 '%B ; !?; '%B ' 1 =A' = '
3C = ' # ' = ' #B ' &!# # ' ?!' / ;8 < =#'
? ' ; = ' 88' #B ' ;;?= ' !; B?8 ; ' = '?#B ; '
EB?' D>' 0 E' B ' ' ?# ' =' #B '&8 @# ?= ' ?!' ?<L
< ! ?= ; ' =' #B ' B>; ' D? ## < ' #' #B '= F#'
@B 8< ' B ' ?C;#' #?' &8 @#' #B ')?<< ! ?=9'
; 'EB @B' D>' #B ' !?; ' @#' ?!' / ;8 < =#' #B >' ; '
88?E '#?' '#?' #B ;'!?;< ;'; K; =# # '%B >'
8E > ' D !?; ' #B >' K;?@ '#?' #B ' '&8 @# ?= '
!E ; =A' = '!CD! ;>' =A' #B '? #B' ?!' 88 A =@ '
#?' #B ;' !# ' = ' !CD! ;> =A' #B ' ;# ! @ # '
?;' ! C; =@ ' @?=# = ' =' = ' @#' ?!' #B ' 8 !# !9'
?=' ?!' / ;8 < =#4' = ' ?; = ' F#; @# ' ?!' #B '
@#' #?' D ' =#' #?' #B ' B ; !! ' 8 ;" ' ?!' #B '
B>; ' #B #' #B >' < >' *=# < # ' #B ' < ' #?' #B '
!; B?8 ; ' #' #8 '= F#' @B 8< 'B ' ?C;#

.'

X0&8 #=B##;A `4

, ***' +*&' / *0*(4' '+' 4+ 4, ***

% &' $ ' % ' (&((* ' ?!' #B ' $* (%' / 0* & %' ?!' C;' <? #B AB' = ' ; ' (? ; A= 4' 2 *0 0* ' Q' ' >' 4#B '); @ ' ?!')? ' 1*)' +' 3 ' && ' $' (%0 +' &) 0 +' $ &' +' * &0 +' Q@' + ! = ; '?!'#B ' ! #B4' ?8 =' = ' AC=' #& =DC;AB' CK?=' #B ' & AB# =#B' >' ?!' K; 84' = ' #B?C = ' (F' C= ; 4' = ' = #>'#B; '> ; ' >' '); @ ' 2 88 <' +C" ' ?!' < 8#?=' ;NC ' ?!' 8 8 4' & ;8 ' ?!' ;; =' Q' 0 = ;"4' 0?; ' =4' /?8<?=# = ' @B = B ; 4' 1= AB#' ?!' #B ' <? #' =?D8 ' ?; ;' ?!' #B ') ;# ;' = ' /; =#' ?!' #B ;' B8 #>T' ' <? #' ?=?C; D8 ' /; >' ?C= 86' ?!' #B ' 1 =AL ?<' %B ;' # ' AB' ?<< ! ?= ;' !?;' B?8 =A' #B '4 < ' >' ;#C ' ?!' ' ?<< ! ?=' C= ;'#B ;' # 'A; #' (8'?!'#B ' 1 =A ?<4' E #B' @ ' = '@?= =#' ?!' #B ' & # # ' ?!' / ;L 8 < =#' C= ;E; ## = ' %B ; ' D =A' 8 ?' K; =#' #B ' ; = ;>' !! @ ; 4' #B ' & ;8' ?!' &;;?88' 0?; ' AB' ?= # D8 4' %B ' + KC# ' ?!' #B ' & ;8' ?!' ; B 884' (;' J?B=' 88' ?!' +C=A8 ! ' 0?; ' /;? ? #' ?!' & =DC;A8 4' 7' ;@B D 8 ' (=@8 ; ' = ' >' 2 88 <' 8 ;E?? 4' (BD; !' + KC# ' ?!'& =DC;AB' = ' + <K # ;

% &' & 0&' $' % 2 &&+ + 0&' 0 +' *) ' &00
7

00' ?!'#B ' ?D 8 #>'K; =#' =' / ;8 < =#

%B ' & ;8' ?!' +;C<8 =; A' ' 0?; ' B AB'
%B ! C; ;

%B ' & ;8' ?!' 8 88' 0?; ' /; >' (8

+ ' 1&(
3C = D =>

3 ' *((&(

& 0&(
%B ' & ;8 ' ?!' ;A>8 '
'& ;8' ?!' ; E!C; '
& ;8' ?!' &;;?88'
& ;8' ?!' (C#B ;8 = '
& ;8' ?!' J =# #B'
& ;8' ?!' 8?;#?=

%' (8 ?' JC;

' ' (D & *) &' 0 +' = ' 0 + ' %B ' 1 =A' = ' 3C = ' J * !# ' # " =A' #?' #B ;' N=9' ! ; # ?= ' #B #' #B ; ' ; ' ?< ' @#' ?!' # ! @ # ?= ' = ' ?#B ;' @# ' K #' =' #B ' ! ?=' ?!' / ;8 < =#' =' ! ?C; ' ?!' K ;# @C8 ;' K ; ?= ' E #B?C#' @ 88 =A' ?;' B ; ##A' ?!' C@B' '8Y >' D '#B ; D>' @?=@ ;= ' ?;' K; C A ' %B ; !?; ' %B ;' !# ' E #B' 9' >@ ' = ' @?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# ' = ' ; = ' #B #' 88' C@B' K ;# @C8 ;' @# ' = ' @# ' ?!' # ! @ # ?= ' K #' =' < == ;' !?; ' B 88' =?#' K; C A ' =>' #8=; ' K ;# ' ?!' #B ;' 8 E!C88' AB# ' =?;' ?!' #B ;' @# ?= ' = ' ! =@ ' @?<K L # =#' #B ; CK?=' D !?; ' #B ' < " =A' ?!' #B ' ' K ;# @C8 ;' @# ' = ' @# ' ?!' # ! @ # ?= ' = '#B #' #B ' 0?; ' ?!' ! ! ?= ' = ' 88' ?#B ;' JC A '?!' #B ' " =A ?< ' !8 88' D '?D8 A '#?' JC A 'D #E F#' K ;L # ' @@?; =A' #?' #B =7' ; 88' AB# ' # = =A' =' #B ;' K ; ?= 4' D !?; ' #B ' < " =A' ?!' #B ' ' @# ' EB @B' ; ' B ; D>' FK?= ' = ' @8 ; ' #?' B 'D =' < ' (8 ?' JC; '@C C!8 D #

% &' 1*)' +' 3 ' && (' J&(%*&('
+ @8 ; ' #B ' / ;8 < =#' C;; =#4' = ' ?C< ' #B ' < ' #?' #B ' %E =#>' %E?' + >' ?!' @#?D ;' F#' G ' = ' ; = ' 88' < <D ; ' ?!' / ;8 L < =#' #?' ## = ' #B #' >' = ' #B #' #B ; ' B ' =? ' = E' &8 @# ?= ' ?!' ?<< ?= ; ' !;?<' (B>; ' ?;' DC;AB ' &F@ K#' CK?=' #B ' #B' ?!' ?< ' ?!' #B ' K; ! =#' ?<< ! ?= ; 7' = ' 8!? ' &F@ K# =A' =>' = E' &8 @# ?= ' #?' D ' < 'D>' #B ' B>; ' EB?' D>' = ' @#' K 8' =' #B '8 !#' ! ?= ' ?!' #B ' / ;8 < =#' ; ' 88?E ' #?' = ' <?; ' ?<< ! ?= ; ' #B =' !?;L < ;8>' #B >' E ; ' =' C '#?' = ' = ' EB?' B '=?#' 8; >' < '#B '&8 @# ?=

*= < !
‖' ; ?!) ; =#
0 ; ?!C'? =
<
) ?;A ;? >?!?>= !
0 ; ?!8>?C=A ;
;?< ;#>
0 ; ?!;?=CC >
J?B=' ;NCB ;#?!; AB? !
;A 8
(;?8=<KD 8?!; " =8 !7
J?B=<KD 8?!;; @"
$!
2 8 <= #;C#B ;>?C=A ;?!#B #*8"
(;J?B=+ <K # ;?!/ #8 ;
J < 8 8?!8B 8
) ?;A ?=@; !?!
$?;! ;
0 ; ‖?!+C==
J < (@?##?!O?A
0 ; ?!1 == D ;
0 ; ?!8E>88?
<!
(;J < D ;@;?<D>?!; " =B?A
' VS+C!!?!; @?
(# E ;#;>?!1 ;"@C D; AB#
CAB ‖AC!!?@"?!C!@?
/ #; @"+C=D ;?!@B; <?;
(C#B ;8 =
<) ?; ?=?!+ 8!?88
#B= !
8 F = ; = ?=?!; A =
&8A =
0 ; ?!; ?
+C=D ;?!); =A
;"= >

8 @"< == =

?!
(;J?B= ?=;?!$?C8
(; 8 F = ;-b*[1 =W ?!?C8
1 =;?!
(;+ <?#

((& ($ ') (
& =DC;AB
/ ;#B
+C=
D ; =
(# ;8 =A
0 =B#BA?E
(=# = ; E
)8 A?E
;
=A#?C=
+> ;#
1 ;" 8
?=#;?

?CK ;
&= #;C#B ;# ;
+; <!;
*= < 8
C;=#* 8 =
1 =AB?;=
; @B =
+Q%7-
J DC;AB
1 ;"@C D; AB#
2 A#?C=
+C<! ;<8 =A
/ ## =E <
(8" ;"
+C=D; ## =
=!; E
+C=D ;
0 = ;"
D ;D;?#B? "
&8A =
/ D8
; 88
% >=
C8;?!
<!
2 B #B?;=
$?;! ;
?#B >
=
$?;; !
C#B ;A8 =
?;#BD ; @"
&= #;C#B ;2 # ;
C' =
0 C ;
1 =#?;
== =
0?@B< D =
(=NCB ;
E) 88?E >
1 8; ==>
$?;#;?!
+ =AE 88
+?;=?@"
3C = ! =>
*= ; ;>
*= ;C;>
2 "
1 ;"E '
*= ;D ; >
(#; =; E ;

(;; @B D 8 C ;

J < 1 == =
J?B= C#BD ;#
8 F)
/ #; @"2 8!
$; =@ ?8 ?=
F = ; C= =AB <
"< = 8
J?B=&E ;#
2 88 <?8#; =

) ?;A (< #B
J?B=; C;; >
J < (<?88 #
2 ' <?@B; =
?D ;#$
%B=< < 8#?=
/ #; @"(# =
J < (# E ;#
J?B= C ;
) ?;A ?=@; !
2 88 <?!
2 88 <&;!8 =a
2 8# ;(# E ;#
/ #; @" C; ?@B
J?B= ;= A>
?D ;# (# E ;#
=
J?B= ?!
2 '8 <;?
J?B= (@?##
(;%B?< (# E ;#
?D ;# 8 8 =
(J < A 8
+ #8 =
J < (@?CA 88
; @ 8 ;

(=NCB ;
E) 88?E >
1 8; ==>
$?;#;?!
+ =AE 88
+?;=?@"
3C = ! =>
*= ; ;>
*= ;C;>
2 "
1 ;"E '
*= ;D ; >
(#; =; E ;
(=NCB ;
E) 88?E >
1 8; ==>
$?;#;?!
+ =AE 88
+?;=?@"
3C = ! =>
*= ; ;>
*= ;C;>
2 "
1 ;"E '
*= ;D ; >
(#; =; E ;
(
J?B= ?!
2 '8 <;?
J?B= (@?##
(;%B?< (# E ;#
?D ;# 8 8 =
(J < A 8
+ #8 =
J < (@?CA 88
; @ 8 ;

(F ?D ;# F;C@
CAB + B><K8
8 F(# =!?=
+ = 8(<K ?=
1 == #B ‖" =W
J?B= = ; ?=
(;2 88 <
< 8#?=
CAB ;?E=
?D ;#$?;D
;@B D 8 (=@8 ;
) ?;A %; 88
2 88 <## 7
(;/ #; @" C;; >‖

/ & (= #B ?88 @ 88 4

*( ); @ 4 %B +C" ?!
< 8#?= #B ;J g
B AB ?<< ! ?= ;K;? C@ = K; =@ ?!
/ ;8 < =# ?<< ! ?= A; =# D> L
#>4 C= ;B A; # (8 #?B <%?+-:+-,-73
#B ; [‖ K T?= = C#B?; #>4 #B ;J8 !9

?<< i ?
)CB 8<'
/C@ '
*+ *
< 8#?=
6 +'
.+

) ' 0*&O ' (' &%' * ' + 'A; # '< A=<'
; # == 'K; =@ ' # D ;= ' F' # A = 4
i @4 + i = ?; ' <= DC 'K;?D ' B?< = DC ' iC '
NC? 'K; =# ('&# ;<';=? #; 'K ; =N; =#(8C9
<' 3C = ?NC <' ?'X< A=';<?< =#';# ?= 9
DC '<?#"' C;; =# '=?i#;' / ;8 < =#'BC C ' =# 9
NC' A=' =? #;' (@?# <' ?= # ' =' NC =# 'iC '
(i ?=' &' =DC;A' @ <? ?@# ?' ' <=i '
K; 8 'K;?F < 'iC#C; '@?= =#C; 4 B @# =C ' # 9
#C < C Z &#'NC '?D'; ;C<'=? #; ;C<'i?; '= @ i 9
<4 @# ' / ;8 < =#'<? #;' i ?=' =# ' 'K; 9
= NC <C '* ?N= ' ?<< i ?= <' =? #; <' #K?9
<' @C <' < =#i < ' ?; = 'iC<< N'
C#B?; # # ' = A= <C 4 K8 = <N' *K '#; DC <C '
K?# i# # <' ?<= ' # =AC8 ' ⫴ <C=C ' #*<K 9
; C<' ?<< i ?= ; ' =? #; ' # C8? ; A ' =? #;'
@C <' ?<< i ?= ; ' K @# =# '# <'K8 = ' #8D ;'
NC? ' ?<= ' ii @#C 'NC <'NC 8 D # 8 C ' C <'
DC @C=N '=? #;?;C<'i ; =i <?;C<'K; @ i ?;C<'
C=NC <' i @ ; #4 i C' ' C; '; 'K?#C ; #4 i @ 9
4 A = 4 K ; A = '3C NC <'?<= ' # =L
AC8 ' =' @#'B @' ?<< i ?= 'K;? NC = ' D' K ?
i @ = 4 ?' i ;< ' # ;⫴ # ' B D <C 4 # B D #C;
' /

' ' '*=)

' ?<< i ?= ';' =' #B ' (i ?=' ?i' / ;8 < =#4
2 B @B' ?<< i ?=' D =A' ?K =8>' ; 4 E ' KL
K? =# '#?'D '; @?; ' =' #B ' ??" '?i' / ;8 < =#4
2 B ;?i'#B '# =?;'i?88?E

?<< i ?
)CB 8<'
/C@ '
*+ *
< 8#?=
6 +'
.+

) ' 0*&O ' (' &%' * ' + 'A; # '< A=<'
; # == 'K; =@ ' # D ;= ' F' # A = 4
i @4 + i = ?; ' <= DC 'K;?D ' B?< = DC ' iC '
NC? 'K; =# ('&# ;<';=? #; 'K ; =N; =#(8C9
<' 3C = ?NC <' ?'X< A=';<?< =#';# ?= 9
DC '<?#"' C;; =# '=?i#;' / ;8 < =#'BC C ' =# 9
NC' A=' =? #;' (@?# <' ?= # ' =' NC =# 'iC '
(i ?=' &' =DC;A' @ <? ?@# ?' ' <=i '
K; 8 'K;?F < 'iC#C; '@?= =#C; 4 B @# =C ' # 9
#C < C Z &#'NC '?D'; ;C<'=? #; ;C<'i?; '= @ i 9
<4 @# ' / ;8 < =#'<? #;' i ?=' =# ' 'K; 9
= NC <C '* ?N= ' ?<< i ?= <' =? #; <' #K?9
<' @C <' < =#'i < ' ?; = 'iC<< N'
C#B?; # # ' = A= <C 4 K8 = <N' *K '#; DC <C '
K?# i# # <' ?<= ' # =AC8 ' ⫴ <C=C ' #*<K 9
; C<' ?<< i ?= ; ' K @# =# '# <'K8 = ' #8D ;'
NC? ' ?<= ' ii @#C 'NC <'NC 8 D # 8 C ' C <'
DC @C=N '=? #;?;C<'i ; =i <?;C<'K; @ i ?;C<'
C=NC <' i @ ; #4 i C' ' C; '; 'K?#C ; #4 i @ 9
4 A = 4 K ; A = '3C NC <'?<= ' # =L
AC8 ' =' @#'B @' ?<< i ?= 'K;? NC = ' D' K ?
i @ = 4 ?' i ;< ' # ;⫴ # ' B D <C 4 # B D #C;
' /

' ' '*=)

' ?<< i ?= ';' =' #B ' (i ?=' ?i' / ;8 < =#4
2 B @B' ?<< i ?=' D =A' ?K =8>' ; 4 E ' KL
K? =# '#?'D '; @?; ' =' #B ' ??" '?i' / ;8 < =#4
2 B ;?i'#B '# =?;'i?88?E

)+66 , +
3 +*0
R - -+6
. % */
. +,, - +
5 0 *+* 6
5+ +
1 6) * -

)+66 , +
+6
H
-+/ ?
. +,, - +
.7+-
5 0 * 0
-+

?8C<' # C= @C;C' ? #C<' =?!#;C<' K;?' ?D 9'
< # K ' # # =NC C' /; =@ K DC ' # (= @ 88 '
(@?# ' *=' ?<= DC ' @# ?= DC ' # @ C! ' 8 DC '
; < = 8 DC ' 8 NC ' @C C @C=NC ' = #C; ' '
?' =' @#?' A=?' K @# =# DC ' 'K ;' O A ' #
K; F =' C <' ?!! @?' ?@ #' =? #; ' K;?' =?D '
< # K! ' ' # =NC <' /; =@ K DC ' # (= @ 88 '
=# @# ' @?<K # '# DC 4' + <= ' K ; # ;' #' ?=9'
@ <C ' @#?' +?< =?' J @?D?' (# E ;# X C; =# '
K # ?' =# @#?`' <' <C=C ' # ?!! @ C<' C<'
C= ;! ' A= # # DC 'B?=?; DC 'K; 8 A '8 D ;# # 7'
DC '! ? 'K =! ?= DC ' # <?8C< =# 'NC DC @C=9'
NC ' ?' K @# =# DC 4' C= @C<'8?@?' ?#?' # C!! 9 9'
A ?'# =NC <'C= ' F' (# #C '=?!#;' !! @ 8 DC ' ='?<L
= DC ' / ;8 < =# ') = ; DDC ' ?=@ 8 ' # ?=9'
=# DC ' @#' A= ' ' # <' =' (@; #?' =?!#;?'
?= 8 ?' #' (@ @ ; ?4' 8 NK ' ?<< ! ? DC 'CD 9'
@C=NC ' ?@ #C ' =?!# ;' =?< = #C;5' C<' K?9'
' # <' @#?' +?< =?' J @?D?' (# E ;# K ;' 8D' '
! ? NC ' (CD!# #C#? ' K ;' K C<' @?=!# #C = ? ' XK;?'
NC DC ' ; K?= ; ' # = D #C;`' ? <' <C= ; ' #
?!! @ ?' ?DC ' =? #; ' ?@ #' K;?' ?D < # K! 4'
#' # =NC <' /; =@ K DC ' #' (= !@ 8D ' (@?# '
'# = 4' <NC ' F ;@ K 4' @C<'C= ;! 'D?=?; 9'
DC ' A= # # DC ' ! ? ' DD ;# # DC ' #' K; 8 A '
?' K @# =# DC 4' #' K ;' NC <DD #' DC<' ! C' D?'
?@ # 'K;?' ?D ' C#' ; = ! < '=?!8; ' =# 9'
@ ! ?; DC ' (@?# ' A DC ' # <K?; ' NC?8 D #' ; 9'
#;? @#?' K?# # 4' A ! ' =' K?! 8 ' *=' @C C ' ; '

!8 <?= C<' K; =# DC ' < A=C<' (A 'C<' =? L
#;C<' KK = 6' < = <C ' KC ' C8 <'=?!#; <'
' 1 = =A#?=4' @ ! <?' ?@# ?' ' =! ' ?9'
<D; ' ==?' ?< =' 88 <?' (F =# <?'
=?= A ! <?' (@C= ?4' #' ==?' A='=?!#;'3C ;#?'
/ ;' (A= #C; <' < =C' (' + ' ' A ' CK; @; K!'
2 ; ## ='#?' #B ' A; #' 8' = ' ; A !#; #' #B '# =#B'
>'?!'+ @ <D ;' = '#B?C = ' F'BC= ; '= <#>'
#E?' (@' (CD @; D #C;' 2 88 1 ;;'A; # ' (8 ' #'
& =DC;AB' #B '% =#B'?!'+ @ <D ;' 94 ' (@' (CDL
@; D #C;' 7P'*=AD

+ ' ?@8@DC;=' ?!' ;< #?C=' O?; 'JC # @ '
8 ;'"' K;? C@ ' ='K; =@ ' ?!' / ;D < =#' ' ?<9'
< ! ?=' A; =# ' D>' B ' #>' C= ;' B ' A; #'
(8' #?' B <' !?;' #B #' !! @ 4' 2 B @B' ?<< ! ?='
D =A' ?K =8>'; 4' E ' KK? =# '#?' D ' @?; '
=' #B ' ??" ' ?!' / ;D < =#4' 2 B ;?!' #B ' % =?;'
!?88?E

) ' O*&O ' (' &%' * ' + 'A; # '< A= '
; # == ' $; =@ ' #' D ;= ' F' #' A = '
$ NC ' + ! =!?; ' <= DC 'K;?D ' ?< = DC '
'NC? 'K; ! =# 'O # ; '=?!#; 'K ; = ; =#' (8C9'
<' 3C = ?NC <' =?D ' DC= ! # ! @#C<' #'
' *=# A; # # ' #' F < ' = < ' ?# DC ' < '
?@"DC;= ' ' ;< #?=4' 3C DC ' ' <C=C ' #'
!! @ C<' =!; ' FK; ! C<' ! D#C;' ?D C= C<' #'
F ;@ = C<' C NC NC NC ' !# ?= C ' ? ; # '
*A #C;' ?' ?< = ! ' ?= # #C ! ' #' ; = ! 4'
! @C#' K ;' B ' =?!#; ' O # C ' ?< = ; C ' ?=9

)+66 , +
. 6
)+-(/ *
.'+,, - +
- *
) *-
5 0
-+

!# #C <C ' #' ; = <C ' C= <' <C<' ?@"L
DC;= ' X C; =# ' =?!#;?' D = K8 @ #?' !?8C<<? ?`'
?!#;C<' JC!# @ C; ' 8 ; @C<' =' =# NC ?; ' =?D9'
#;?' (@?# ' A=?' + <= ' K ; # ;' ?=@ <C '
#' K?= <C ' <' <C=C ' # !! @ C<' JC # @ 9'
; ' 8 ; @' K; =?< = #?' <?' ?@"DC;= ' X CL
; =# ' K # ?' K; @#?`' @C<' C= ;! ' ?=?; DC 4'
K; 8 A 4' *<<C= # # DC 4' $? 4' &<?8C< =# 4'
#' !C D# # DC 'NC DC @C=NC ' ?' K @# =# DC 4' K ;'
K!C<' !;C = ' #' A C = ' # ;=' K8 = ' ?NC '
DD ; ' =' NC? ' ; K @#C' #' @?= # ?= 'NC <' NC 8 9'
D #' F' N C ' =' @#?' !! @ ?' =# @ ! ? DC ' NC? '
<K?; '; #;? @#?'A C D =#4' C'A C ; 'K?# ; =#4'
D NC ' K; C @ ?' # < =' J @?D?' ?=#A?< ;>' C9'
= ?; ' 'O =A B E4' NC ' 8 ; @C 'JC # @ ; '@?=# 9'
=C D #' ;#C# ' ?<< ! ?= '; A ' =? #; ' < =C'
A= # ' *=' @C C ' ; ' % # <?= C<' K; =# DC 9'
< =C<' (A 'C<' =?!#;C<' KK = 6' < = ;?C 4'
KC ' C8 <' =?!#; <' ' 1 = =A#?=4' @ < I'
?@# ?' ' =! ' ? <D; ' ==?' ?< =' 88 L
<?' F =# <?' ?= A <?' @C= ?' &#' ==C'
A= '=?!#;'3C ;#?' / ;' A= #C; <' < =C' (CK; 9'
<' +?< =' =? #; ' A ' CK; @; K ' 2 ; ## =' #?'
#B '); #' (88' = '; A #; # '#B

% ' O?; ' /?8E?;#K;? C@ ' ='K; =@ '?!'/ ;L
D < =#B ' / # =#?!' ?=?;4' *=# #8 =A'B <'#?'#B '
+ A= #>'?!' O?; ' /?8E?;#A; =# 'D>'B ' #>'
C= ;' !! ' A; #' (8'#?'B <' 2 B @B'/ # =#D =A'
?K =8>'; 4' E ' KK? =# '#?' D '; @?; ' ='#B '
??" '?!'/ ;8 < =#4' 2 B ;?!'#B '% =?;'!?'?% (

) + O*&O ' (' &%' * ' + 'A; # '< A= '
; # == ' $; =@ ' #' $8 D < ' F' #' A = 4'
$ N' + ! = ?; ' <= DC 'K;?D ' ?< = DC ' '
NC? 'K; =# 'O # ; '=? #; 'K ; = ; =#' (8C# <'
3C = ?NC <' ?'A; #?' <? C<' = <?' ! @?9'
8 =# '< ; # 'A; A ' #' =AC8 ; '! ' <? C<'
#' K; 8 @#' =? #; ' ?= 8 ; ' +?< =' / #; @ '
C< ' '/?8 E ;#' D# ' ;?= ## 4' K;?K# ;' ! ;9'
< <' C <' !?;< # ' 8 A ?= ' B ?= <4' ! 9'
D# # <' K! C ' = A= <4' @' ! <' =# < ; # <'#C;='
=' C # ' < # ' #' ?= ;@B ' C; DC 4' #C;=' ='
O A DC ' #' O D ;# # DC 'BC C ' =# NC ' A= '=?!#; '
(@?# ' @?= ; = ' @8 ; <' #' @?= K @C <4' * N '
<K?; DC ' !! @ 8D< ' #' K << 4' ? NC ' # 9'
<' K ;K = =# ' 3C? ' =' =CK ; ' A = ;? ' #'
@ 8 D ;; < ' =? #; 4'&FK # ?= 'K;?'B?@' @ # ; NCC'
=?!#; ' A= ' ' / K <?' #' %>; == ' DD ; = 4'
8 @; # ;' ?' ' 8A ?' #' @?=@?< # #C 4' 3C? NC '
?D ' C<< '! ' #' #C ?' =' 88C #; 'D ?'K;?K? #?'
K;?<? = ?' #' K ;! @ = ?' = ; #4' C#NC ' <'
+?< BC '/ #; @ C 'C8# ; C ' F@ # #C;' '! ;<C<' #'
<<?D 8 <'K ;! !# = C<' =' ! D# # ' !C ' ;A ' ? '
#' @C; ' ! C ' ' < = # ; ' =? #; ' K; # = '
? ; # ' A #C;' ?' ?< = ! '! @ ! 4' ?= # #C ! '
#' ; ! 4' (@C#' K ;' B ' =?!#; 'K # =# 'O # ; '
?< = <C ' $ @ <C ' ?= # #C <C ' #' ; <C '
C= <'+?< =C<'/ #; @ C<' C< 'O D ;C<'/ ;7

'<+6 '
'+6 ' '
*-' +6 '
. ' + ? *'
; '% +' '
; 0 ' '
'+6 '
+ ? * 4

8 < =# + ? < =C = @# BC C ? #; A= + ?
= =C< / ?8 E ;# =?< = = C< # A= = C<
+ <= K ; # ; ?=@ <C # @?=! ; <C = @L
#C< + ?< =C< / #; @ C< C< # !! ; < ;
@C8? ? ;K?; C? 8 A # < K;?@; # C K;?
@; = ? # ; @#?;C< C?;C< ; C<
% #C8C<4 + A= # # <4) ; C< # ?=?; < 0 D ; ?
/ ;8 < =# + ?< = C< K8 = ; K?# # # JC; ?
C#B?; # # K 4 C!N = @# ? < A C
= # !;C = 4 C< ?<= DC # =AC8 K; ;?
A # 4 K;<@ =# 4 K; < = =# 0 D ;# # DC # #
*< <C= # # DC N C DC C=N ? ## = =# DC # K
=# DC 5 3C DC @C< @#C< + ?< =C< / #; @ C<
C< =?D 8 # <C # = !# <C 4 K @ # < ;?
@C< 8 D ;? = / ;8 < =#? (C!!; A ? % = = C< #
J* D = C; =# @#C< % #C8C<4 A; C< # ?=?L
; < , D ; / ;8 < =# + ?< = @C< C= ;8 #
=AC8 K; ;?A # K;<@ =# 4 K; < = =# 4
K; 8 A *< <C= # # DC # 8 NC DC @C=m ?
K @# =# DC K ; @#C< + ?< =C< / #; @ C< Z
C< C m =# @#? ?D =? #; NC ; 9
= ! < (C@@ ! ?; DC *= ?<= DC / ;8 < =# 4
; =C<| ?= =# DC 4 ?= 8) = ; 8 DC 4 ?<9
= DC NC 8 KCD8 @ # K; # C <
?=A; ! DC # ;= K8 = ; ?N4 8 D ; = ?< DC
K @# DC # ? = # ?= DC 4 NC < NC 8 C
8 D ; / ;8 < =# + ?< =C # 8 % #C8?4 ?=?; ?
+ A= # # # A; C4 @C< ?<= DC K; 8 A D 9
NC NC DC @C=NC ? K @# =# DC NC? # <K?; ?
K; # ; #? K; < =# C !C#C; K?# #C # A !C !#
C !;C @ A C ; K?# ; # @ K; # ; ?8C<C
C# ?= CA # 0 D ; @# + ?< = / #; @ C<
= <+ A= # # <4 0?@C< #K;<@ =# <# = 9
=# K; ?<= DC ?= CA DC # 0 D ; ?;C< NC?
A= # # K;<@ ; D =# 8 D ; / ;8 < =# ?9
< = 4 @C< A = ; 8 # # K?;;? =# @# K = 9
<C ' #NC @#C + ?< =C / #; @ C C< C8# 9
; ?; ?=?; @ ; A =?!#; ! ?; ;A K C<
=?# # # ! ; = A= #C; ?8C<C # ; = <C
C# C; =# C< K;?K; ? @?8?; @?= K @CC< # 9
< # *<K ; 86 ; < #C< # =NC < K; ?; DC C
*= A= ; <?; # < =#C< = <K? @ ;C9
8 ? CK ;?<= A ; #4 0 ?= K?;;? ;<?;C< A 4
C NC !; #; DC ! @ 8 DC = <C C# *= A=
C ; <?; < ? ? =# @# @?= @; D =#4 @C<
?<= DC # < =# F#; < C # # # = !9
; 4 ; = <C = NC @ + @8 ; <C B !@
=?!#; K # =# 0 # ; CD < A=? =?!#;? (A 88?
? ! 8 # C!! @ =# !?; @#? +?< =?
/ #; @ ? C< C NC K; @# K;? K?! = ?
@#? % #C8?4 A= # #) ; C # ?=?; 0 D ;
/ ;8 < =# ?< = C# K; ! ;# ; @C< ?<= DC #
=AC8 K; <;?A # K; @ =# 4 K < < = =# 4
K; 8 A *< <C= # # DC 0 D ;# # DC 4 8 NC
W K @# =# DC ?<= ! = # K;?K? # 4 @
K! 4 C NC K; < @# 4 @C< ?<= DC ; # DC # 9
; <?= ! < 8 DC ?@@ ! ?= DC K ; C C # #
= # # # = CAC; # !C ! =#4 3C?@ ;@ ? K;?
?D 4 ; A NC =?!#; C@@ ! ?; DC + K = <C
= K ;K #CC< *= @C C ; % !# <?= C< K; =# '

DC < A=C< (A 88C< =?!#;C< KK = 6 < = 9
<C KC C8 <= ? #;C< 1 = =A#?= @ <?
(F#? + @ <D; == ? ?< = 88 <? (F9
@ =# <? # ?= A = ? A= NC =?!#; == ?
(@C= ? / ; (A= #C; < < =C (CK; < +
A CK; @; K#

2 *0 0 * 0?; J DC;AB K;? C@ = K; =@
?!/ / ;8 < =# / # =# ?! ?=?; *= ! ?C; ?!
?D ;# 0?; J DC;AB = B ; 8 4 2 B @B
! 8A =A *= ! ?C; ?!#B 2 88 < 0?; J L
DC;AB Q B ; 8 4 %=# #8 =A #B < #? #B
+ A= #> ?! 0?; J DC;AB4 2 B @B K # =# D =A
?K =8> ; 4 E KK? =# #? D @?; = #B
?? " ?! / ;8 < =#4 = #B ! 2 88 < 0?;
J DC;AB4 B =A AB# #? #B # % #8 = ?L
=?; @?=!?; < #? #B / # =# E < ## @@?; 9
=A8>4 2 B ;?! #B # =?; !?88?E

0 ' (+ A; # (@?# < =A8 < $; =@ < #
D < < F4 $ N ! = ?; F== DC K;?D
?< = DC !C NC? K; =# 0 # ; K ; 9
= ; =# (8C# < (@ # 3C = ?NC < =?!# ; ! ; 9
= ! <C C J @?DC (F#C < <# < # D #
< <?; ?= ; # #; =C K ;A; # CA # ;NC
< C8# ; #;?! C8 = # < C8#?# ?K ; K ;
= A= ?< =? ! !! ;=>B ; # < # # C
(@ K# ! ; < ?; DC 4 # ; = = K!?;C< K # DC
@;? =@# 4 ?!C<NC # ?= DC #C = 4 NC < =
?=# = = CD ?;C< ?D NC ? CD # 4 C#B?; 9
N ; A 8 !C8@ = 4 #C; = ;? KCD8 @ A=
K ; C 88 DC 4 K;? ; 8 K;NKC8 = 4 K ; # ;N = ! 9
@ =?;? # K; @? ' C 0 #;?=C< # &F8 AC<
0 < # = BC C A= =? #; @?=! = =! #
?<K @ = ! @ # # @; # <?;#CC< ?< =C<
= ; < 1 ;; $;=>B ; # ?< =C< J L
DC;AB @ # # @?=@ ! # C NC ; DC
@C8 # (C@@ ! ?; DC = $ < 8 $ C=>9
B ;!# ?A=?< = # ;< 1 ; A ; =# DC 9
#C;= ?=?; < # A= # # < + ?< = J DC;AB4
@C< C= ;! K; ;?A # # K; < = =# <
== F @#C<NC ?=?; < # A= # # < @C<
=# A; K; 8 A C < @C< @# $ < 8 =
?<= C< ; < = # ?8C #4 K;?C# = @# 0 9
; / # =# DC 4 + # @C= ? =! $ D9
;C ; == ? ?< = J 88 <? (F@ =# <? A 9
<? @C= ?4 CD < A=? (A 88? FK # !C C
B D #C;4 ;#C# NC ;C<NC < 0 # ; ;C< K # =9
C< @#C <?;#CC + ?< =C = ; 1 ;;
@; #C !C # + ?< =C J DC;AB4 # @#C< ?L
=?; < # + A= # # < C; =# DC ?<= DC C #
DC K?! # # A !C #5 3C F B @ # 9
@ ! # D NC B ; DC < ! C8 F C ?;K?;
&# ? = <? =? #;? ; ?8 =# < K8 #C = < #
= C< A =C =C< @# ;C< 0 # ; ;C< K # =# C<
@ # < ?D ;#C< 1 ;; =C=@ $;=>B ; # !
C= @C< $; #; ! 8 C< @# NC?= < = ; + ?L
< = J DC;AB4 & # K;? @?= ; = < <?;
$ < 8 4 = % J8 !K?!C ! @# # ;;

' < + 6
5+/ * C *
. J *
/ * .
% +
' 0
' + 6 .
. / *0&

JC @ #?; 4 C@B = !! @ ;?!(# # C; =A#B # < ?!#B (! ?=) =# ?C; ?C;# # 1 = =A#?=%B #B 9 = %E =# #B >?!B8 ;@B = ?!?C; A=#B ! !#B > ;4 >B #> ?<< = (@ (CD @; D #C; J J?B= #?C=4 %B O ## ; ; @# ?=#B D @"#BC %?#B +C" ?!< 8#?=C; ?<< ! ?= ;#?#B =9 !C =A(! ?=?!/ ;8 < =# #& =DC;AB

% && ;8?!+;C<8 =; A #" = A=#B #B?!88 A =@ 4 = #??"#B #B?!/ ;8 L < =#4 = A=#B ! C; =@

%@?=@ ;= =A#B <D ; E8?B =?# A= #B ! C; =@

/ (' #B <D ; ?!/ ;8 < =# !# ;= < 7 (; / #; @"(@?# ?! =@;C<4 (; 2 88 <(@?# >?C=A ; ?! ; =(; ; E A= E?!O?@B= E4 %B O ; ?!) ;#B8 = 4 #B O ; ?!(" 8<?;8>4 J?B= =?!)8 = A 4 J < < >?! <!4 (;J?B=!!?;D ?! ; A;9 @ (; CAB <KD 88 ?! 8 ;4 (; / #; @"A 8 >?!?>= 4 8 F+C!!?! ; @@?4 J?B=)?;L ?=?!&<D?4 %B?< +C<D ;?!); =A 2 8L 8 <; A ?!) ; >4 (;+ ;=?# ?! #B # *8"4 + ;C@?! 8 @"< == =4 J?B= ?!E 88 ?<< ! ?= ;!?; 1 ;" 8 4 + (K =@!?; =9 #;C#B ; !# ;4 J < (< #B!?; +C<D ;4 J < (# E ;# !?; &8A =4 CAB 2 88 ?!*=A8 #?C= !?; &='#?; 4 %B?< 41 == >!?; 0?@B< D =4 J?B= = ; ?= !?; *= ;C;>4 =?# > # (A= #B ! C; =@ @?=!?;<#? #B %B ;#> AB#B @# ?! #B (@?= (! ?=?! #B C;; =# / ;8 < =# %B ; !?; #B ; #> AB ?<L < ! ?= ; = #B & # # ?!/ ;8 < =# +? ;L =#B <#? @?< =#? #B / ;8 < =# = #? A=#B < #E F# = #B ! !#B >?! > = F# 2 #B ;# ! @ # ?= ! #B >! 84 = D =?# 8 E!C88> F@C 4 #B ; K8 @ B 88 D @8 ; @ =#4 = #B >!C;#B ; @ = C; #B / ;8 L < =# B 88 #B ="! ##4 = #B # ; ; B 884 D A =#?#B 4 ; K # (B>; = C;;?CAB #? CKK8>#B ;K8 @

%A = # #B <D ; EB?B =?# # " =#B #B?!88 A =@

$ (' #B <D ; ?!/ ;8 < =# (!# ;= < ?<< ! ?= ; !?; (B>; = C;L ;?CAB B =?# NC 8 ! #B < 8 = =>(!L ?=?!#B / ;8 < =#4 D># " =A#B #B?! 88 A =@ = A= =A#B ! C; =@ ?=!?;<#? #B @# ?!/ ;8 < =# < !?; #B # !! @# > (;J < $?C8 ?! ? ' =A#?=?=?!#B ?<< !L ?= ; !?; #B (B ; ?! & =DC;AB4 (; 2 88 <&88 ?# ?! (# DD !?; #B (B>; ?! FDC;AD4 ,

)

5 9]] R ') 8])

/ & (= #B ?88 @ 88

% &?<< ! ?= ;K;? C@ =K; =@ !/ 9 8 < =# & ## ;!;?< B #> KK? =# =A#B & ;8?!9+;<=8 =; A#?# = ?# =#B (! ?' ?!/ ;8 < =# 0?; %B C; ; 2 B @B 0 ## ; D =A?K =8>; E ; = #?D ; @?; =#B ?? "?!/ ;8 < =#4 2 B ;?!#B # =?;!?88?E

(@CK; @; D #C;2 *0 0* *) %%;C #> = =# ; 8> D 8? ?C =4 2 B ; #B ?!! @ ?!0?; AB%B C; ; =?E =?<< ! ?=4 = # D =A K;? > D># B 0 E ?!#B # ?C; 1 =A ?<4 #B # #B =C<D ;?! C; !! @ ; ?!(# # 4EB?; ?#B = K8 @ =/ ;8 < =# B?C8 =?# F@ #B =C<D ;?!& AB#4 =#B?# =># < 4 #B ; B?C8 D <?; K ; ?= <K8?> =#B &F @C# ?= ?!#B !! @ = # D =A; ?= D8 #B # ?= ?; ?#B ;?!#B ?<< !! ?= ; ?!?C;%B C;>4 B?C8 KK ; = @# =#B B!C =A(! ?=?!/ ;8 L < =# %B ; !?; & ? ?< = # = KK? =# C; AB# #;C #> = E 88 D 8? ?C =# = ?C= 88?;J W= & ;8?!+;C<8 =A; A?= ?!#B ?<< ! ?= ; ?! C;%B C;>#?B #B K8 @ = ?# ?!#B O?; AB%B 8 C; ; =#B =9 !C =A(! ?=?!?C;/ ;8 < =#4 = =88?#B ;

E 8 H 9c *<<+ 0 & 1 *+, '* 6 0 * 0 + .7+ & , + +, * H 6 =+*.%& * *

%&+* ') 4

59=]]99 ')]) 999

%&+* ') 4

#B < 8 ' !;?<' #B ' (! ?=' ?!' / ;8 < =#4 ?#L E #B # = =A' EB 9 ?!' #' K8 ' #B ;' #>' ?<< ! ?= ;' = ' & # # ' ?!' / ;8 < =#' D>' =' @#' ?!'#B '%E =#>'#B ; '?!' K; 8'#?' 88?E'#B <'#?' @?< ' =' = 'NC 8 !>'#B < 8 '!?;'#B #' C#>' #';' D !?; ' #B ' ! !#B' ?!' >' =!8 =#' E #B' ;# ! @ # ?=4 = ' #B ' ' K ; ?= ' D =A' #B ' >' @ 88 ' = ' =?# @?<K ; =A' %B ' 1 =A' = ' 3C = ' # ' E #B' @ ' = '@?= =#' ?!'#B ' ' & # # 4 +K ' ?=!?;<'#?'#B ' @#' ?!' / ;8 < =#' !?;' < ;@ # =A' ?!' D =#' <D ; 4 $>= ' = ' < ;@ # ' @B' ?!' #B ' ' ;?= ' ='#B ' (C<' ?!' (F'BC= ; 'K?C= ' (@?# 4 = ' @B' ?= ' ?!'#B '!?; ' ?<< ! ?= ; ' !?;' C;;?CAB ' ='#B ' (C<' ?!'%E?'BC= ; 'K?C= ' (@?# 4 = ' KK? =# '#B ' @ ;') = ; 8' ?!'#B ;' # ' =# ' = ' C 8# '#?'@?88 @#' = 'CK8 !#' #B ' ; K @# ' ! = ' = 'K = 8# ' D? '< =# ?= ' = '#?'K >' ='#B ' < '#?'#B ;' #>'%B 8 C;>' = ' ; = ' ?< =A' #?' K ! ' B ; ?=4 #' # ; ' =9' #< @ ' ?!'#B ' ' @ ;') = ; 8' ?=' ' B ;A ' ?!'! !# =' > 4 = ' '?#B ;'&F @C# ?='@?<K # =#' #?'D ' ; @#' = 'C '!?;' =D; =A =A'?!'#B ' < ' ' @@?; ' ?!'#B ' 0 E' = ' !C;#B ;' %B ' 1 =A' = ' 3C = ' # ' E #B' @?= =#' !?; ' + @8 ; ' #B ;' K8 @ ' ' < <D ; ' !' #B ' / ;8 < =#' #?'D ' @ =#' = '2 ;; = ' = ' NC ; '#B '(B ;; ! '?!' #B ';' K @# '(B>; ' = '#B ;'+ KC# '?;' 8 ;" 4 #?' @ 88' = ' ?= =' #B' 88' + 8 A =@ '#B ' !; L B?8 ; '#?' < # #' #B ' B ' C;AB '#B ; ?!' = ' ?; = '#B <'D =A' < ##'#?' 8 @#' ! ##' = 'NC 8 !> ' K ;!?= ' =' #B ;' K8 @ ' = ' ='8 " ' < == ;' ;L = '#B ' A !8; # ' = '%?E=' ?C=@ 8 '?!'#B ' C;AB ' D? < =# ?= ' 9#?' < #' = ' 8 @#' ! ##' = 'NC 8 !> ' K ; ?= ='K8 @ '?!'#B? ' D? 9' = = '#?' ; K; ! =#' #B <' ='#B ' @C;; =#' / ;8 L < =#' '#B >' E 88' D ' = E ; 2 4 = '#B #' CK?='#B ' K; @ ! ' > '!?&?E =A' '%B #' C@B' (B>; ' = ' C;AB ' ' ; ' D !?C#B'#B ' ;'?!'% >' < #' = ' 8 @#' #' #B ' ; K @# 'K8 @ ' CK?='#B ' (FL # =#B' >'?!' >' =!# =#' = '#B #' C@B' (B>; ' = ' C;AB ' ' ; 'D =?;#B'#B ' ' ;' ?!'% >' < #' = ' 8 @#' ?='#B '%C =#>'#B ; ' >'?!'#B ' '<?= #B'?!' >

%'!>= =A'#B ' D =#' ?D8 < =

U' $ (' ' '#B '0?; ' !# ;< =# ?= 'B ' D =#' '#B < 8 '!;?<'#B ;' # '(; @ ' ='#B ' K; =#' (! ?=' ?!' / ;8 < =#' %B ; !?; ' C;' (? ; A='0?; ' = '0 >4 E #B' @ ' = ' ?= =#' ?!'#B ' &!# # ' ?!' / ;8 < =#' +?' $>= ' = ' < ;@ # ' @B' ?= '?!'#B ' '0?; ' ='#B ' ' (C<' ?!'%E 8 9BC= ; 'K?C= ' (@?# 4 9#B ' & ;8 '?!' #B= ! ' C;; >4 ?< 4 / ;#B' (?C#B9' "4) 88?E >'%; NC ;4 ;8>4 1 =@ ; >= 4 8@ ;9' ; ' = ' D ; =4 %B ' @?C=#' ?!' (#?;<?=#B4 !@?C=#'?!'$; = ; CAB#4 1 =A #?C= ' F =!??; ' = '(#; #B ' =4 %B '0?; ' (=@8 ;4 8 KB =#4 0?9' #4 0 = ?; 4 8< ; =?@B4 <!4 ?8 884 E ;"

;= ' 1 == ; ' = ')8 !??; 4 = ' KK? =#'#B ' @ ;') = ; 8'?!'#B ;' # ' =#'' = ' C 8# '#?'@?88 @#' = 'CK8 !#'#B '; K @# 'K L = 8# ' D? 4 = '#?'K >' ='#B ' < '#?'#B ;' # '%B C;>4 = ' ; = ' ?;= =A'#?'K !' B ; CK?='#'#B '*= # =@ '?!'#B ' ' @ ;') L = ; 8'?='' B ;A '?!'! !# = ' > 4 = ' ''?#B ;' &F @C# ?='@?<K # =#'#?'D ' ; @#' '!?;' =D; =A =A' ?!'#B ' < =4 ' @@?; '?!'#B '0 E

%'?!'*= <=# ' ='! ?C; '?!' 2 88 <' $ '%B?< ' 8 ?=' = 'J < ' 2 8 ?=

% &'0?; ' ?<< ?= ;' B '); @ ' = '& # # ' ?!' / ;8 < =#'*='@?= ; # ?='?!' ='*= <=#>' K;?< 'D>'#B '0?; '?!'#B ;' #>'K; >' ?C=@ 88' #?' 2 88 <' $ ' ,F ' =' K# =' /;>@ ' ?<K =>' =' (;'J < '0 8>' A < =#'9 = '%B?< ' 8 ?=' ?='#?' 2 88 <' 8 ?='8 # 8>' ='0?; ') ?;A ' < 8#?= ' A < =#' = 'J < ' 2 8!?=' =')?? 9 CD' !?;'#B ;' @@ ! ?='#?'@ ;# =' ;?DD ; 'D>'#B <' !; 8>'@?=! ! ' +?' B ; D>'#' *= <=!>'#B '!?; 'K ; ?='!;?<' 88' K ='?!' 0 E'#B #'#B >' B ' =@C;; 4 ?;' < >D ' < ' 8> D8 ' ='!?;'#B ' < 4 @?<< = =A'#B <' !' = 'D '#?'#B ;'); @ ' = 'K ; ?='#B ;9 = =#' = ' ; = =A'#B <'#?'D ' ; @ '2 #9' = ! ' ='88'@ C '!@"8 " ' ' !'!C&>'K ; ?=

?; = '#B <'D =A'< ##'#?' 8 @#'! ##' = 'NC 8 !> ' K ;!?= ' ='#B ;' K8 @ ' = ' ='8 " ' < == ;' ;L = '#B ' A !8; # ' = '%?E=' ?C=@ 8 '?!'#B ' C;AB ' D? < =# ?= ' 9#?' < #' = ' 8 @#' ! ##' = 'NC 8 !> ' K ; ?= ='K8 @ '?!'#B? ' D? 9' = = '#?' ; K; ! =#' #B <' ='#B ' @C;; =#' / ;8 L < =#' '#B >' E 88' D ' = E ; 2 4 = '#B #' CK?='#B ' K; @ ! ' > '!?&?E =A' '%B #' C@B' (B>; ' = ' C;AB ' ' ; 'D !?C#B'#B ' ;'?!'% >' < #' = ' 8 @#' #' #B ' ; K @# 'K8 @ ' CK?='#B ' (FL # =#B' >'?!' >' =!# =#' = '#B #' C@B' (B>; ' = ' C;AB ' ' ; 'D =?;#B'#B ' ' ;'?!'% >' < #' = ' 8 @#' ?='#B '%C =#>'#B ; ' >'?!'#B ' '<?= #B'?!' >

%' &' / ;& < =#' ?C;= '# &'%C >'#B ' (@?= '?!' >' #'% =' ='#B '!?; =??=

%' &+* ') 4

A' 99' ')]) *

/ & (' ' = '#B ' ?& '@ &

% &'0?; ' C#B ;!??; 4 (;' = ; E' A= 2'?!' ! #B'?!' 0?@B= E4 2 & <' +CA 8' ?!4) ;#B8 = ' = ' 8 F = ;' +C!!'?!' ; @?' A= '#B ' ! C; =@ 4 = ') ?;A '%; &8' !?;' 1 ;"E &'#??"'#B ' #B'?!' 88 A =@ ' = ' #B'?!' / ;& < =#4 = ' CD! ; D ' #B ' #B'?!' & A =@ ' = ' ! C; =@ 4 = 'B ' = < ' ; ; '#?'D ' FKC=A ' !;?<'#B ' ?88'?!' D =#'

%' &' =C#'?!' EB #' E ' ?='#B 'K; @ =A' (;C=#'?!' / ;8 < =#' E '#B =' ; 4 E #B'#B ' = < '?!'#B '0?; 'EB?' ; ' D =#' = '=?# F@C

+& &+'#B ; ?='#B #' &' D =#'D ' @?=# L =C '='#B #' ?884 C=# &'#B ;'&F@C 'D ' ; !> 4 #B ;' D>'#B 'K ;#>' ='#B '% ;< ' "6'#B ' @#' ?!' / ;8 < =#4 ?;'D>' =C;; 4 ?;' < >D ' < 8> D8 ' ='!?;'#B ' < 4 @?<< = =A'#B <' !' = 'D '#?'#B ;'); @ ' = 'K ; ?='#B ;9 = =#' = ' ; = =A'#B <'#?'D ' ; @ '2 #9' = ! ' ='88'@ C '!@"8 " ' ' !'!C&>'K ; ?=

`BY5-+ = =#

-4+-3 "87,- ' 275' K;? C@ ' C 9

S S

ʻ

ʻ ʻ *=)

ℝ "4b
231"2+3
-^48,-5

?!' / ;#B' = ' (# ;8 =A4' (# E ;#; ' ?!' (#; #B ;=' = ' =# #B4' EB ; ' #B ; ' ; ' =?#' K; ! =#' # L D8 B 'JC A 4' %B ; !?; ' BC<D8>' @; =A' %B #' B ') ; @ ' #B ;' # ' B AB' ?<< ! ?= ;' = ' #B ' & # # ' ?!' / ;8 < =#' < AB#' D ' K8 ' #?' A; =#' ?<< ! ?=' = ' 2 ;; = ' #?' =>' ?= ' ?;' <?; ' @@ K# =A' ?<< ! ?= ; ' ?!' CKK8>' ?!' #B ' ' (B ;; ! ?< ' #?' @?A=?!@ ' CK?=' = '8 NC # ' #B ' ' + < A ' 2 #B' K?E ;'#?'#B <'#?'@DC ' #B ;' ?E=' 8 ;"4' = ' #?' ; K?;#' #B ' < ' #?' #B ' K; =#' (! ?=4' ?;' =>' ?#B ;' =!C =A' (! ?=' ?!' / ;8 < =#' #?' #B ' !! @#' #B ' K # # ?= ; ' < AB#' D ' ; ; ' =' C@B' E >' = ' < == ;' ' #B ;' # ' ?<< ! ?= ;' = ' & # # ' ?!' / ;8 <7' B?C8 ' #B ="' ! ##4' ' #B ' ' K # # ?=' =' #' 8!' <?; ' !C >' K;?K?;# ' 2 B @B' K # # ?=' D =A' ; ' =' K; =@ ' ?!' #B ;' # ' ?<< ! ?= ;' = ' &!# # ' ?!' / ; < =#' %B >' ') ; =#' = ' B ; D`Y') ; =#' ?<< ! ?=' = ' 2 ;; =#' #?' = ' ;' < ' @@ K# =A' ?<< ! ?= ; ' ?!' (CKK8>' ?!' #B ' D? ' (B ; ! ?< ' = ' (# E ;#; '#?' ?A=? @ ' CK?=' = ' 8 NC # ' #B ' + < A ' ?!' #B ' / # # ?= ; 4' 2 #B' K?# ;' #?' #B <' #?' @BC ' #B ;' ?E=' 8 ;"4' = '#?' ; K?;#' #B ' #= '#?' #B 'K; =#' (! ?=' ' =>' ?#B ;' =!C =A' (?=' ?!' / ;8 < =#' #?' #B ' !! @#' #B ' / # # ?= ' < >' B ' ; ; !?' ?!' #B ') ; =@ ' C # = 'D>' #B <

% &' / ;8 < =#' ?C;= '#?' %BC; >' #B ' !?C;#B' ?!' 20' #' = = ' ?!' #B ' 8?@"' =' #B ' !?; =??=4' = ' KK? =# '#B ' ?<< ## ' #?' < #' #' = = ' ?!'#B ' 8?@"' #?' <?;;?E

' @ 7 3 '

!' ; 4' 4+@4F@

/ & (' ' = '#B ' ?88 '@ 88

%' !@ % ' = E' (CKK8>' ?C#' ?!' #B ' 0 = =#4

' % &' & # # ' ?!' / ;8 < =#' # " =A' #?' #B ;' ?=L ; # ?=' %B #' =' ; A ; ' ?!' #B ' A; #' = ' << L = =#' + =A ; 4' EB @B' #B; # =' #B ' 1 =A ?<' !;?<' !?;; A= ' = ' =# !# = ' !! @# ?=' = ' A= ' 8' < =4' #B ; ' ' ' D8 ' = ;! #>' ' <E ' # = =A' $?;@ 4'EB @B'; NC ; ' # ?= 8' (CK > ' #?' D ' ; ' !?;' #B ;' < =# = =@ ' +?' #B ; !?; ' BC<D8>' = '@B ;!C88>' !?;' #B < 8 4' = ' =' = < ' ?!' #B ' 1 =A ?<4' EB @B' #B >'; K; ! =#4' < " '?!! ;' #?' #B ;' # ' ?!' ' (CKK8>' ?!' (=' BC= ; ' = ' !8! !#>' F' #B?C = ' K?C= ' (@?## ' <?= >' &FL # = =A' #?' % =' <?= #B ' ! ' = ' = ' B 8!' <?= ' = ' #B #' ? ;' = ' D? '#B ' =' <?= #B ' ! ' = ' = ' B 8!' > #' ; < = =A' C=CK8 !# ' ?!' #B ' (CKL K8>' <K? ' D>' #B ' F#B' @#4' @?= ' (! ?=' ?!' #B '@C;; =#' / ;8 < =#' # '#B ' =#B' ?!' JC= ' = ' #B?C = ' F' BC= ; ' = ' >=#>4' 2 B @B

= E' (CKK8>' '#?' D ' ; ' = 'CK8 !# '?C#' ?!' #B ' 0 = =#' ?!' #B ' 1 =A ?<' ' #B ' < ' < == ;' = ' @?=!?;<' #?' #B 'K;?K?;# ?= ' ?!'#B ' (B>; ' = ' C;AB ' @?=# = ' =' #B ' ' @#' ?!' / ;8 < =#4' = ' #?' D ' K > ' =' #B; ' K ;# ' & @B' #B ; ' K ;#' =!C ; =A' #?' #B; ' ?= #B ' ! ' = ' =' B 8!' <?= #B4' > ' %E?' BC= ; ' ! !#>' #E?' #B?C = ' /?C= ' 'D =A' ?= '#B ; 'K ;#' #B ;?!' #?' D 'K > ' D #E F#' = '#B '%E =#>' ! !#B' >' ?!' >' *= # =#4' =' #B 'K; =#' > ; ' = ' #B?C = ' (F' BC= ; ' = '=>=#>' #B; 4' = ' =?#B ;' %E?' BC= ; ' ! !#>' #E?' #B?C = ' /?C= ' #' #B '% ;<' ?!' ;# < ! ' = ' #B?C = ' F' BC= ; '=>=#>' #B; 4' = ' #B ' #B ; ' %E?' BC= ; ' ! !#>' #E?' #B?C = 'K?C= ' #?' D ' K > ' #' #B ' % ;< ' ?!' 2 B #!C= >' ?= '#B?CL = ' (F' BC= ; ' = ' >=# '!?C; '> ; ' = '#B ' 1 =A' = ' 3C = ' # ' ?= ; =A4' %B #' #B ' (CKK8>' 'A; =# ' !?;' ?' = @ ! ;>' = ' <K?;# =#' = ' = 'KC;K? ' +?' E #B' @ ' = ' @?=! =#' ?!' #B '& # # ' ?!' / ;8 < =#' + @8 ; 4' %B #' =?' / ; ?=' ?;' K ; ?= ' B 88' D ' F <K# ' !;?<' K >< =#' ?!' #B ;' K;?K?;# ?= ' ?!' #B ' (CKK8>' !?;' #B ;' 0 = CK?=' =>' K; # F#' EB # ?< ;' &F@ K# =A' <?;# 9' !> '0 = ' 88 == ;8>4' =?#E #B # = =A' ?!' =>' !?;L < ;' 0 E' K; 8 A ' ?;' @#' ?!' / ;8 < =#' =' #B ' @?=#; ;' = ' %B ;' # 4' E #B' @ ' = ' @?= =#' !?; '+?' ?C = # ' = ' KK? =#'#B ' < ' K ; ?= 4' EB?' ; ' = < ' =' #B ' !?; ' @#' ?!' / ;L 8 < =#' EB?' ; ' 8 ' = ' B ' NC 8 !> ' #B <L 8 ' @@?; =A' # ' 0 E' ?;' B 88' NC 8 !>' #B < 8 ' D #E F#' = '#B '! ; #' >'?!' CAC #' = F#4' = ' C@B' ?#B ; ' ' B ' D =' =@ ' =?< = # ' D>' #B ' K; >' ?C=@ 88' #?' D ' ?<< ! ?= ; ' !?;' ; ; =A' = ' CK8 !# =A' #B ' (CKK8>4' E #B' #B ' < ' K?E ;' #?' #B <' #?' ?' ;>' #B =A' #B #' < >' @?=@ < ' #B ' < 4' ' ' K; @; D ' = ' KK? =# ' D>' #B ' ' @#' B?8 =A' #B ' < ' ' ; K # ' B ; =5' = ' ; = '#B ' < '&F @C# ?=' #?' K 8 ' !?;' =D; =A =A' #B ; ?!' ' ' K;? ' D>' #B #' @#' =' ' K? =# ' = ' ; = '#B ' ! ; #' # =A' ?!' #B ' ' ?<L < ! ?= ; ' !?;' #B ' (B>; 4'#?' D ' #'#B 'B ' C;AB ' #B ; ?!4' CK?=' #B ' (F# =#B' >' ?!' >' *= # =#4' #' # =' ' 8?@"4' !?;' #B ' (B ; ' ?=' #B ' ' #B ' ;' ?!' % >4' = '#B '%C =#>' #B ; ' ?!' #B '*= # =#' !?;' #B ' (B>; ' D =?;#B' % >' = ' NC ; ' #B ' (B =; !! ' = ' (# E ;# ' ?;'#B \;' + KC# '#?' =# < # ' #B ' (< '#?' #B ' ?<< !a ^< ; ' ?!' #B ' ; K @# ' (B>; ' = ' (# E ;#; 4' E #B' K?E ;' #?' #B <' #?' KK? =#' #B ;' CD NC =#' +> # ' ?!' # =A' = ' #B ;' ?= = ;' !;?<' # < '#?' # < ' = ' KK? =# ' #B ' K; ! =#' ?88 @#?; ' #?' @?=# =C ' !?;' #B ' ! ; #' % ;< ' K >< =#' ?!' #B ' (CKK8>4' #B >' ; =C =A' #B ;' !?;< ;' C# ?=4' ?;' ! = =A' ?#B ;' C!! @ =#' C# ?=' DC#' K; C @ '#?9 #B ' ' ?<< ! ?= ; ' #?' @?=# =C ' #B <4' ?;' #?' KK? =#' ?#B ;' K ; ?= '#?' D ' ?88 @#?; ' !?;' #B ' ?#B ;' #E?' % ;< 4' ' #B >' B 88' ! = ' @ C! ' = ' < ## ' #?' #B ;' # ' K; >' ?C=@ 84' CK?=' #B ' #B4' ?;' =?#' @@ K# =@ '^ ?!' =>' ?!' #B ' ?<< ! ?= ; ' ?!' (CKK8>' = < ' =' #B ' !?; ' @#' ?!' / ;8 < =#' #?' =?< = # ' = Z .' (

S U9

KK? =# ?#B ; ' =' #B ;' K8 @ ' = ' #B ;' L
' E #B' @ ' = ' @?= =# !?; 4 +?' + @8 ; '
%B #' 88' 8 C! ' @#<# = ' =' #B ' !?;< ;' @# '?!'
/ ;8 < =#' = ' ?= # ?B' ?!' & # # ' =' ; 8 # ?='
#?' #B ' =D; =A =A' ?!'#B ' ! ' = ' 3C ;# ; =A4' = '
= =# ;> =A' <?= >4' B '' !# = ' =' !C88' !?;@ ' '
#?' #B ' (CKK8>' =?E' *<K? ' =' #B ' < ' < == ;4'
' !' #B >' E ; ' = ;# B ; =5 &F@ K#' =' ?' ! ;' '
#B ' @# '?!' / ;8 < =#' ?;' ?= =# ?=' ; ' ==?L
' ?;' 8# ; ' D>' #B ' !?; ' F#B' @#' ?!' #B '
@?= '(! ?=' ?!'#B ' / ;8 < =#4' = ' #' 'B ; D>'
+ @8 ; ' #B #' =?' / ; ?= ' 8> D8 ' =' / >< =#' ?!'
#B ' (CKK8>' B 88' D ' B?8 =' #?' K;? C@ ' #B ;' + !9'
@B ;A ' ?;' @ K# '?!'#B ' < =4' !# ;' #B; '> ; '
!;?<' #B ' ; K @# ' # ;< ' ?!' K >< =#4' C=8 !' + L
8 A =@ ' D ' ?= ' D>' + =C=@ # ?=' D !?; ' 8 K =A'
?!'#B '- ,+-' #B; '> ;

%' !?;' 0 > =A' ?!' (< =

G' ' ' (& *) 8 &' 0 +' = '0 + '%B '
1 =A' = ' 3C = ' # 4' ?= ; =A' ' / ;?K?L
8' A =' =' !;?<' #B ;' # ' K; >' ?C=@ ''
!?;' #B ' <?; ' !! @#C 8' 8 > =A' ?!' (< =' !?;' #B ;'
#> ' >4' EB ; ?!'#B '% =?;' !?88?E ' % &'
0?; ' ?!' #B ;' #> ' K; >' ?C=@ 88' =' @?<L
K8>' =@ ' E #B' ' #> ' 0 ## ;' !?;' #B #' !! @#
@?<< = '#?' #B ;' #> 'B AB' ?<< ! ?= ;'

Q' ?=?C; D8 ' & # # ' ?!' / ;8 < =#4' %B #4' =' ;L
;' ?!' / ;8 < =#' < >' D ' < ## ' KK? =# =A' #B '
A #; # '?!' 88' #B ' C;AB ' ?> '4' C;AB ' ?!'
A 8 #>' = ' ;?= 4' CK?=' #B ' (' ? !#'?!'#B '
1 =A ?< 4' = ' ?#B ; ' #B ' ; #?; ' CK?=' #B ' ('
? !# 4' #?' < " 'CK' 0 !# '?!'#B 'D 88' (< =' !8(B ;9'
< =' = ' ? #< =' #B =' #B ' D?C= '?!'#B ;' ; L
K @# 'JC; @# ?= 4' = ' @ C! ' @ !# 0?## '!?;'#B '
!?C;#B' < =4' #B #' ' D #E =' (F#>' = ' (F# =' ='
88' C@B' C;AB ' = 4K8 @ ' EB @B' !C;= B ' =?'
(< =' #B '8 !#' > ;4' =' ?D =@ '#?' #B ' ?C=@ 8 '
; ; ' !?;' #B #' !! @#' = '#B ; !# ;' #?' @ !# 0?## '
!?;' #B ' AB#B' < =' @?=# = ' =' #B ' ' 0 !# 4'
#?' D ' < 'CK' D>' ? #B4' ?;' =>' ?#B ;' 8 A 8' < L
#B? ' D>' #8 ' ' A #; # ' E #B =' #B ' B ''
?C= ' ; K @# ' D? = < ' = ' #B ' A L
#; # ' = ' ; #?; ' ; '8 " E ! '#?' @ !# 8?## '!?;'#B '
E '!C ''' D! =# ?;' C=E 88 =A' ! < =' = ' EB @B'
!?C;#B' = '& AB#B' < =4' #B '! ' A !#; # ' = '
; #?; ' ; ' << # 8>' #?' W ' = ' 8 ;' #?'
K# =' 2 88 <' &;8" = ' 0 # = =#)? ;=?;'
?!' 8 @"= ! 4' ?;' !C@B' ' B '88 88' + KC# ' = 'A '
?<< ! ?=' #?' !?;' #B #' !! @#' 2 B?' X!?;' #B 'D ## ;'
! ' ?!' #B ' A #; # ' ; K @# '!?; `' '#?' D '
=#;C # ' !?;' ; @ =A' = '#; = K?;# =A' #B ' '
(< =' << # 8>' !# ;' #B >' ; ' 0 # 4' = '#?'
@ ;;>' #B <' #?' 0 #B4' EB ; ' ;>' (< =' #B #' =L
A A ' =' #B ' (; @ ' ' #?' ; @ ' %E =#>' !?C; '
K?C= ' ?!' A; # ! @ # ?=4' D>' = ' ##?C; ' #B ;' @?=9'
!# =# / >' #B ; !# ;4' @?=!?;<' #?' #B ' &=A8 !B'
& # D8 !! < =#4' = '#B ' ' K# = '&; " = '

#?' #; = K?;# #B ' (< =' #?' D ' 8 > ' !;?<' 0 ;A '
#?' +C= ' =@8C! ' D !?; ' #B '%E =# #B' >' ?!'
>' *= # =#4' = ' #B ' (< =' ?!' ?# B ;' K8 @ ' D L
#E F#' = ' #B ' ! ; #' ?!' JC= ' = F#' %B ;' # '
E #B' @ ' = ' ?= =#' ?!' #B '& # # '?!' / ;8 L
< =#' +?' ?; ;' = ' ; NC ; ' ?D =@ '#?' D ' A ='
#B ; #?4' =' < == ;' #B ; =' K;?K? ' 2 #B' ;# ! L
@ # ?=' #B #' C@B' '! 8' #B ; =' *B 88' D 'KC= B ' '
K ; ?= ' @# ' #?' #B ;' #> ') ? ;=< =#'
= ' !' =>' ?!' #B ' (< =' EB?' B 8' D ' ?' 8 L
; ' ?' ?;' = ?C;' #?' !8 ' !;?<' #B ;' # '
; @ 4' !# ;' #B >' ; ' 8 ; '%B >' 8B 88' D 'K;?L
@ ' A = #' E #B' 88' ; #>' '$CA # ' = '
C= E > '!;?<' #B ;' # ' ? #4' = '#B ;'
#! 'E #B' @?=! =#' !?; ' C#B?; W ' = '*<K?E ;'
#B ' / ; >' ?C=@ 8' #?' # " ' C@B' !C;#B ;' @?C;! ' '
< >' D ' <? #' FK =#' !?;' < " =A' #B ' @#' !! @7'
8C 884' D?#B' ?=' #B ' = ' #B '8 " ' ?@@ ! ?= 4' C; =A'
#B 'K; ! =# 2 ;;

% &' / ;8 < =#' ?C;= ' # 88' #?' <?;;?E'
D =A' #B '! !#B' ?!' >' #' # =' =' #B '!?; =??='
= ' K ' ?<< ## ' KK? =# ' #?' < #' #'
& AB#' =' #B ' <?;= =A

%' &+* ')

A' R ' %Z)])

/ & (' ' = '#B ' ?88 '@ 88

% &' @#' < ;@ # =A' #B ' D =# ?<<T' !;?<' ! = =#
(B>; ' = ' C;AB 'E ' ; ' = '@?= ; 4' = '
#B ;CK?=' ; ; 4' %B #' #B ' <D ; ' EB?' B ' < <D ; -'
K > '#B ;' $ = ' 8; >' !8 88' CK?=' K;? C@# ?=' ?!'
#B ;' + !@B ;A ' D ' !; ' !;?<' =>' !C;#B ;' $>= 4'
DC#' K; C @ ' ?!' (B>; ' = ' C;AB ' #?' &8 @#' ='
K8 @ ' ?!' C@B' ?<< ! ?= ; 4' ' B 88' B KK =' #?'
K;? C@ ' C@B' + !@B ;A

%' !?;' = ' # ?= 8' &F@ !

% &' & # # ' ?!' / ;8 < =#' # " =A' #?' #B ;' @?=9' '
; # ?=4' %B #' #B 'K; ! =# =A ; ' ?!' #B ' 1 =AL
?<' ?' ; NC ; ' !?;' # '= @ ! ;>' ! =@ 4' 'A; # ;'
=C<D ;' ?!' $?;@ ' #?' D ' 8 > ' = '" K#' CK4' !?;'
EB @B' # ?= 86' $?= '#?' #B 'K; ! =# CKK8>' CKL
?=' #B ' 0 = ' =#' E 88' D ' ; NC ! # ' +?' #B ; !?; '
!?;' ?= '?!'#B '$?= 4' ? ;' = ' D? '#B '&F@> '
?!'#E?' < ;" '?=' #B ' ?88' ?!' 8#4' == F '#?' #B '
;?E=4' B ;# 8>' !! ;'#?' #B ;' # 4' !?;'#B ' = '
!?; 4' =' # ?= 86' &F@> '?!'#B; 'K == 'CK?='
#B 'K =#' ?!' 88' 8 ' = ' ; 'D;?E= '#?' D ' = '
= '(?8 4' ' 8 ?' ?!' #E?' B 88 =A' CK?=' @B' K =# '
?!' NC # ' = ' #;?=A' 2 # ; ' D;?E= ' ?;' < '
?!' < 8#4' #?' D ' = ' = '!?8 'E #B =' #B ' 1 =AL
?<4' = ' 8 " E > ' =' # ?= 8' &F@> ' ?!' #E?'
B 88 =A' CK?=' #B ' K =# ?!' NC # ' = ' #;?=A

2 # ; 'D;?E= ' =?# < '?!' 8#4 &F@ K# =A' EB # ' < '?!' 2 = ' 2 B @B' &F@> ' '#?' D 'K > ' =' < == ;' !?88?E =A' ')' $?;'#B '! ; # #E?' ?= #B '?!' JC= ' = 'JC8>' CK?=' #B '! ; # ?!' CAC #= F# = ' #B?C = ' F' BC= ; ' =>=#>' %B; ' = ' #B ;9' !# ;' NdC ;# ;8>' C; =A' #B ' K @ ' ?!' %E =#>' #B; ' <?= #B 4 ?<< =@ =A' !;?<' #B '! ; # >' ?!' JC= ' = F#4 = ' = =A' #B '! ; # >' ?!' >4 ?= ' #B?CL = ' F' BC= ; ' =>=#>' ! ' $?;' < " =A' ?!' #B ' EB @B' ?!! ;' !! @#C 88 %B ;' # ' E #B' @ ' = ' ?= =# ?!' #B ' '& # # ' ?!' K ;8 < =# +?' B ; D>' *<K? ' = ' ; =' #B '!?; ' # ?= ## &F@> '?!' #B; 'K == 'CK?=' #B 'K =# '?!' 8 ' = ' ; 4 = '#E?' B 88 =A' CK?=' #B?' K =# '?!' NC # ' = ' #;?=A' 2 ; ' < '?!' 8# ?;' ?#B ;E > ' ' !?; 4 #?' D '; ' = 'CK8 !# '!;?<' 88 ;! E ;' ?!' #B ' '& N ' ?; 'D;?E= ' = '< '#?' D ' = ' = ' ?8 ' ' (' 4 !<' #B ' ' K @ ' ?!' %E =#>' #B; ' ?= #B ' = '!?;'#B ' ! =A' ; ; =A' = ' =8F==A =A' #B ; ?!' /8 >' ?' B ; D>' KK? =# = ' C#B?; W ' #B ' ?<< ! ?= ; ' ?!' #B ' = E' (CKK8>' ?<B # ' = ' KK? =# ' =' =?#B ;' @# ?!' #B ' K; ! =#(! ?='?!' / ;8 < =#4 %?'D ' ?<< ! ?= ; ' ?!' &F@> '!?;'#B ' ; 88 (B>; 4 !?;'#B ' = '!?;L 4 = ' #B ' ?> 88 C;AB ' #?' B ' #B ' < ' =C<D ;' ?!' ?<< ! ?= ; 4 'E ' KK? =# 'D>'#B ' !?C;# =#B' @# ?!' #B ' / ;8 < =# = ' #B?C = ' (F' C= ; ' (F#>' ?= ' *<K?E =A' #B <' !C88>' !?;' #B # !! @# @?=!?;<' #?' #B ' C8 ' = ' ?; ;' !?;< ;8>' = @# '!?;'; ! =A' = ' !?; =AB A' #B '!?;L == F '&F@>! 4 ' 8 ?' #?' ## ?E=' = ' @ C '?D ; ' C@B'?#B ;' C8 ' '#B >' B 88 C A ' = @ ! ;>4 A; D8 ' 8E >'#?' #B ' @# '?!' / ;8 L < =# 8; >' < ' D?C# #B ' '!?;< ;'&F@> 4 = '#?'# B ' !! @# DC! ' =' #B ' < ## ;' < >' D ' K; =# ' %B ;' # ' E #B' ?= =# !?;L ' +?' B ; D>' + ; ' < ' &= @#4 %B # !' =>' ; E ;' =' C! '#?' D; E' !?;' (8 ' = ' B =A ' B 88 A '? ;' D; E =A' !# ;' #B ' # '?!' #B ' @# E #BL ?C# =' ?2 = ' =' 2 ; ! =A' ! ;<=' #B '(' <=9 < ! ?= ; '?!'&F@>! '!?;'A?? ' = '! =' @ C! 4 %B ' ; E ;' B ' =?# D 'K ;< ## '#?' D; E' !?;' B =A '!?;'#B ' K @ '?!' ! '> ; ' #B ; !# ;4 DC# B 88 D ' = ' 'B ; D>' !@B ;A ' = ' ; = ; ' =L @ K D8 '#?' ?'#B ' < ' '8 " E > '*#' 'B<Z B>' (# #C# ' = ' ; = 4 %B #=?' K ; ?='EB # ? ;' EB?' B '=?# D =' =' C! '#?' D; E' !?;'#B ' ; @ ' ?!' #B < 8 ' = ' #B ;' $ < 8 ' =' # < 'D>K # B 88 K; C< '#?' D; E' !# ;'#B '! ; # ?!' JC= ' = F# !?;'#B ;'?E=' = '#B ;' $ < 8 ' C! ' = ' !'#B >' @?=#; = '#B # #B >' B 88 D '8> B8 ' =' K >< =# ?!'#B '&F@> '!?;'EB #'#B >' B 88 D; E5 = '#B ;' # 'E #B' ?= =#!?; '+?'?; =' #B '! ; # +> #' ?!' < # =A' ?!' #B ' ' ?<< ! ?= ; '#?' D ' '!?88?E 4 ')' !?;'#B ' (B>; '?='#B ' > '?!' #B ' ;' ?!' % >4 CK?=' #B ' (F# =#B' >' ?!' >' *= # =#4 = '!?;'#B ' (B>; 'B =?;#B' % >'CK?=' #B ' %E =#>'#B ; ' >'?!' >' = ') ; =# ' 2 ;; =#'#?' #B ' (B ;; ! ' = '(# E ;#' ?!'#B ' ; 88 (B>; ' = ' (# E ;#; '?;'#B ;' + KC# '#?' ?= = '#B '

?<< ! ?= ; '#?'#B # !! @#' 2 #B' K?E ;'#?'#B <' #B ; !# ;'#?' KK? =#'#B ;'?E=' ?= = ;' = ' CD9' NC =# +> # ' ?!' # =A' = '*#' 'B ; D>' + L @8 ; '%B #' !' =>' % @" < =' ?;' ?88 @#?;' ?;' ?#B ;' K ; ?=' B 88' F @# =>'#B =A' ? ;' = ' D? '#B ' &F@>! '!?;'#B ' + !@B ;A ' #B ; ?!4 ?;'!?;'#B ' + !9' @B ;A ' ?!' =>' ?#B ;' KCD8 @"' +C 'EB # ? ;' *#' B 88 D '; KC# ' '?KK; ! ?=' = 'KC= !B ' @@?; L =A8>' D>' #B ' ' ?<< ! ?= ; 4 EB?' ; 'B ; L D>' *<K?E ; ' #?' K;?@ ' A =!# #B ' K ; ?=' AC 8#>' = '#B ;' !# 'E #B' @ ' = '@?=L =# !?; ' +?' C#B?; W ' < ' *<K?E ;'#B '0?; ' ?!'K; >' ?C=@ 88 #?'K; !? D ' C@B' ?#B ;' < #B? ' = ' ; ; 4 '#B >' B 88 C A '= @ ;>'!?;' < " 9' =A' #B ' @# !! @#C 8O

% &' / < =# ?C< '# 88 %C >'= F# # # =' ' 8?@"' =' #B '!?; =??=' = '?; ; ' %B # #B ' ?<< ## ' < # # = = ' =' #B ' <?;= =A'?=' (#C; >' = ' ?= >4

%' &+* ')

A' 9] ' ')])9994

/ & (' ' = '#B ' ?88 '@ 88

& %' ; A'?!' @@ ;#?C= 4 &8 @# '!?;'#B ' : "%. 9%@

(B>; '?!'&@B=DC;AB4 *=' K8 @ '?!' (;' J<= '$?C8 ' ?!' ?' =A#?C=' B =A' # " =' = ' CD8!@; D '#B ' #B' ?!' A =@ 4 = '!CD! D '#B ' ! C; = 4 = '# " =' #B ' #B' ?!' / ;8 < =# E ' < ##

,%"7-%+' 6"+' 31-' ,1%+-' " 6' 5%2/"+#1

% &' & ;8' ?!' =@ ; >= ' = ' ?C=#?!' 1 =A L #?=' &F@C ' D>' B ') ; @ '#B ;' ! 5q ' AB' ?<< ! ?= ;4 !?;' =?# ## = =A' #B ' / ;8 < =#4 7' +-#2+5' 76' 31-%+' 76%+ . %30'

: !2+!" 6

+,C 0 +D> -^48,-50

% &' / ;8 < =# ?C;= ' # 88' %BC; >' = F#4 # 3-7' ' 8C@"' =' #B '!?! =??=

%' &+* ') 4

A']9' ')])E9

/ & (' ' = '#B ' ?88 '@ 8

%' A = # ! 8! ' C # ;' = ' !; ' 3C ;# ;' = ' = =# C 'K > =A' ?!' #B ;' # ' $?;@

' ' (& *) &' 0 +' Q' 0 + ' %B ' ** 1 =A' = '3C = ' # ' = '#B '& # # '?!' / ;L 8 < =# # " =A' #?' #B ;' #< ; # ?=' #B # # E 88' @?=#; DC# ' <C@B' #?' #B ;' # ' (; @ '#B # 88 !; C ' = ' @ # =' < " =A' ?!' ! 8 ' C # ;' B '?D C;# ' = 'K; =# 4 = '#B # #B 'K >' # 9

S (

K ; <K#?; 8>' K;?B D # ' = ' !@B ;A ' #?' ?!! ;' =>' *= C;>' ?;' DC '#?' ?C;' ' ?; < ! ;>' ?;' B ' + KC# ' '#B >' E 88' D ' =!E ; D8 ' #' #B ;' B AB #' K ;; '8' = ' (@"8 " ' 2 ' E #B' @ '!?; 'K ;9' ; <K#?;8>' NC ; ' = ' ?<< = '#B ' !! @ ;' ?<9' = = =A' =' @B !' =' =>' K8 @ '?!' 8?@ 8' ?;' #; = =#' 3C ;# ; '#?' '#B 'B 88' < #' = '+ ; ="' !C;= B ' #?' #B ' (?8 ;' = ' !! @ ;' C= ;' B ' ? ##< = 4' B>' #B ' 0 = 8?; ' ?!' #B ;' 3C ;# ; ' F @#8>' = ' @?<K8 #8>' K > ' #' #B ' ?; = ;>' # ' ?!' #B ' ?C=#;>4' = ' =' @ ! ' #B ; ' B 88' D ' =>' F @# ?=' I;' !@B ;A ' ?!' !; ' 3C ;# ; ' F#?;# 4' ?;' D # L < =#' F @# ' D 8?E' #B ' ?; = ;>' # 4' ?;' >' ?#B ;' DC ' @?<< ## ' 2 ' E #B' @ ' !?; ' ' NC ; ' = ' ?<< = '#B ' ?<< = =A' !! @ ;' #B ; ' !?;' #B ' # < ' #?' < " ' K >< =#' D>' ; >' <?= >' !?;' #B ' EB?8 ' (?8 ;' = ' !! @ ; '^<' #B ' K8 @ 4' =' #B ;' 8?@ 8' 3C ;# ; ' ?=@ ' ;>' 2 "' #' ! ;#B #' = ' #; = =#' 3C ;# ; ' D !?; ' <? 84' !' #B >' # >' ' B?;# ;' # < '#B =' ' 2 "4' C= ;' #B ' K =' ?!' @ !! ; =A' = ' D; " =A' #B ' ' ?<L < = =A' !! @ ;' CK?=' ?<K8 =#' ?!' B '#; = A; ! 9' =A' #B 'K; < ! '#?' D ' < 'D>' #B ' / ;#>' = C; ' ' / ; >' ?C=@ 88' ?;' #?' #B ' (B ;; !' ?;' B ' + KC# 4' 88 '?!' A 8 #>' ?;' B ' + KC# 4' (# E ;#' I' #B ' (# E ;#;>' ?;' B ' KC# ' ?;' =>' #E?' ?<9' < ! ?= ; ' ?!' (CKK8>' ?!' #B ' D?C= ' = ' B>; ' EB ; ' #B ' ' DC ' = ' *= C; ' ; ' ?= ' = ' ?<< ## 4' 2 B?<' ?;' #B ;' ?!' #B < ' 2 ' E #B' @ ' !?; 4' NC ; ' = ' ?<< = '#?' ; @ ' #B ' '@?<K8 =# 4' = ' #; = < #' #B ' < '#?' #B ' 8 ;"' ?!' C;' K; >' ?C=@ 88' E #B =' # =' > ' !# ;' =>' C@B' ?<K8 =# ' B 88' D ' < '#?' #B <4' C= ;' #B ' K = ' ?!' D =A' 8> B8 ' #?' ; K ;' #B ' K ;#>' =L C; '#B < 8 4' = 'EB @B' @?<K8 =# 4' 2 ' E #B' @ ' !?; ' KK? =#' #?' D 'KC; C 'D>' ?C;' ?9' @ #' = ' (?8B@ #?;' CK?=' #B 'KCD8 @"' B ;A ' = ' =' @ ! ' =>' K; #' K ;#>' B 88' #B ="' ! ##' #?' KC; C ' #B ' < =' #B < 8 ' 2 ' B ; D>' NC ; ' = ' ?<< = ' #B ' &FK =! ' #B #' B 88' D '8 > ' ?C#' D>' 7 #B <4' =' K;?! @C# ?=' #B ; ?!' #?' D ' ; K > ' = ' ; L <DC; ' #?' #B <' D>' #B ' 0?; ' ?!' C;' %B C;>' ' E 88' ' #B ' &FK = ' #?' D ' 8 > ' ?C#' D>' C;' (?' @ #?;4' '' EB @B' ; ' #?' D ' ; # = ' = ' L C@ ' D>' #B ' ' 0?; ' ?!' ?C;' %B ! C;>' ?C#' ?!' #B ' !! @ ; ' K >4' A = #' EB?<' #B ' ! ' ?<K8 =#' ' < ' = ' ; !> ' = ' =' @ ! ' =>' *=! ; ?;' !! @ 9' =' #; = =#' ?;' 8?@ 8' 3C ;# ; 4' B 88' #; = 9' A; ! ' =>' ?!' #B ' K; < ! ' 2 ' B ; D>' NC ; ' = ' ?<< = '#B '@?<< = =A' !! @ ;' CK?=' ?<L K8 =#' < ' #?' B <' = ' K;? =4' = # =#8>' #?' K >' #B ' ?<K8 = ;' EB #' B 88' D ' C '#?' B <4' = ' !' #B ' K ;!?=' @?<K8 = ' ?=' D ' =' C=@?<< ! ?= # ' !! @ ;4' #B ' ' ?<< = ;' ' = # =#8>' #?' D; "' = ' @ !! ;' B < ' = ' !' B ' D ' ' ?<< ! ?= # ' !! @ ;' EB?' B 88' ?' #; = A; ! 4' 2 ' E #B' @ '0 !?; 4' ; NC ; ' #B ' ' ?<< = =A' !! @ ;' #?' C K = ' B <' =' #B ' < =' # < 4' = ' << # 8>' #?' ; K; ! =#' #B ' < '#?' ?C;' / ; >>' ?C=@ 884' %B #' #B >' < >' A ' ?; ; ' !?;' D; " =A' = '@ !! ; =A

#B ' !! @ ;' #; = A; ! =A' K;D > =A'#B ' ?<K8 =#' !?;' =?#' K >< =#' ?!' 8?@ 86' 3C ;# ; ' ?;' ?<< ## =A' =>' ?!' #B ' DC ' !?; ' #B ; =4' D ' < '#?'#B ' ' ?<< = =A' !! @ ;' E #B =' AB#' >' !# ;' ' 2 " ' 3C ;# ; ' ; '; !# =A4' ?;' =>' ?#B ;' DC ' @?<< ## ' = ' =' #; = =#' 3C ;# ; 'D !?; '#B ' / ;#> '; <? 884' E #B' @ ;# ! @ # ?=4' !'K >< =#' D ' =?#' ; 4' ?;' ?<K8 =#' < 'E #B ='#B '# < ' !?; 4'#B ' ?<< = =A' !! @ ;' B 88' D '!; 4' DC#' K; C @ '#?'# D '0 = 8?; ' = '?#B ; '#?' "'#B ;' K >< =#' = ' ; K ; # ?=' !;?<' #B 'K ; ?= 88' + D#L ?; '#B ; =' B;' ?<< ## ; '#B ;?!' D>' 88' ?#B ;'8 A 8' < = ' = ' #' B 88' D ' C!! @ =#' =@ '#B #'#B ' ?<< = =A' !! @ ;' B 'D =' @?<K8 = '#?4' = ' ; NC ; '#?' < " 'K >< =#' ?!' K;? ?= '!C;= B ' #?' (?8 ;' < =' = ' ?;! ' < ;' B ' ?<< = 4' ?;' ; ; ! ' ?!' DC! ' @?<< ## ' D>' #B <4' !' #B ' < 'D ' < '#?' B <' =' K; ! =@ '?!' ' A #; # ' E #B =' C;AB4' 'JC # @ '?!'K @ '?;'#E?' 2 #= ! 4' = ' 2 4' E #B' @ '!?; ' +?' + @8 ; '%B #'=?' !@B ;A ' B 88' D ' C!! @ =#' !?;' F?= ; =A'#B ' (?8L ;' = ' !! @ ;' = ' =!#;C@# =A'#B 'K >< =#' ?!' #B ;' 3C ;# ; 4' C=8 ! ' #B >' D ' CD @; D 'D>' #B ' # ;' ?!'#B ') ;?C= 4' ?;' B ' B <B ;8 = 4' ?;'#B ' !! @ ;' ?!' #B ') ;?C= ' D !?; '#E?' 2 #= ! ' ?;' ' A #; # 'E #B =' C;AB' = '!?;'K; =# =A'?!' ' @?<<?=' DC ' ?= ' = ' @?<< ## ' CK?=' ?C;' 0 A 'D>' (?8 ;' = ' !! @ ;' =' #B ;' < ;@B 4' K; ! =A' = ' W =A' CK?=' B?;! 4' D>' =>' !! @ ;' ?;' (?8 ;' !?;' #B ' ?; 4' #B ' < =' D =A' ?D8 A '#?'K;? ' B < 8!' = '#B 'B?;! 4' EB @B' B 88' D 'K > 'D>' #B ' A L #; # '?!'#B ' C;AB4' !' #B ' ?;! 'D '# " =' E #B =' '%?E=4' ?;' !' =' #B ' ?C=#;>4' D>' #B ' ?88 @#?;' ?!' #B ' (CKK8>' =' #B ' B>; 4' EB?' ; '#?' D ' ; K > ' #B ;?!4' ?;'#?' B '#B ' < ' 88?E '#?' #B <' D>' #B ' @ ;') = ; 8 4' = '#B #'#B ' ?;! '= @ ! ;>' #?' D ' < ' C '4?!' = 'W <K8?> '!?;' #B ' (; @

' C ' = ' ; @ ' 2 'E #B' @ '!?; ' + ?' #; @#8>' K;?B D # ' = ' !@B ;A ' 88' K; ! BA' ?;' W =A' CK?=' B?;! 4' D>' =>' !! @ ;' ?;' (?8 ;' !?;' #B ;' ?E=' K ;# @C8 ;' = 'K; # ' ; @ 4' C= ;' #B ' K =' ?!' ' <?= #B 'K >'#?' D W; # = ' XCK?=' ?<L K8 =#' #?' D ' < 'Q' =!#;C@# ' ' !?; '' ?!!'#B ' !! @ ;' EB?' @?<< = ' = 'EB ; 'B?;! ' ; '= 9' @ ! ;>'!?;' @ ;;> =A' ;# 88 ;>4' <<C= # ?=' ?;' / ;?9' ! ?=4' ?;' =>' ?#B ;' C 'D !#B ' ;<>' =' #B '%?E= ' ?;' =' #B ' ?C=#;>4' #B #' #B ' < 'D ' <K8?> ' = ' < ' C ' ?!' D>' ?; ;' ?!' #B ' ?<< = ;' ?!' #B ' K ;#>' = '?!' #B '* * A #; # '?!' #B ' C;AB ' ?>=#9' 8>4' !' #B ' B?;! 'D ' !C;= B 'E #B =' C;AB4' = ' D>' #B ' ' ?<< = ;' = ' =>' ?= '?!'#B ' ?<9' < ! ?= ; ' ?!' (CKK8>' E #B =' #B ' (B>; 4' EB ; '#B ' *8?;! ' ; 'IC;= B ' = '< 'C! '?!' =' 0 = ;#4' = ' 2 4' E #B' @ '!?; '@?=!?==' #?'#B '#B ; ' @#' / ;8 < =#' = '#B?C = ' (F' BC= ; ' = ' AB#>' ?= ' ; =' %B #'#B ; 'D ' K > ' !?;' @B' >4' #B #'#B ' 'B?;! ' B 88' #; 884' #B; ' (B 8L 8 =A' (@?#' !?;' @B' #E?' < 8 4' #?' #B ' < =' = ' ? T! 4' = ' @B' >' #B #'#B >' ?' =?#'#; 88'P(F' B 88 =A' (@?#' #?' #B ' < =4' = ' 8 ' <C@B' !?;' #B ' ?; 4' #B ' < =' D =A' ?D8 A '#?'K;? ' B < 8!' = '#B 'B?;! 4' EB @B' B 88' D 'K > 'D>' #B ' A L #; # '?!'#B ' C;AB4' !' #B ' ?;! 'D '# " =' E #B =' '%?E=4' ?;' !' =' #B ' ?C=#;>4' D>' #B ' ?88 @#?;' ?!' #B ' (CKK8>' =' #B ' B>; 4' EB?' ; '#?' D ' ; K > ' #B ;?!4' ?;'#?' B '#B ' < ' 88?E '#?' #B <' D>' #B ' @ ;') = ; 8 4' = '#B #'#B ' ?;! '= @ ! ;>' #?' D ' < ' C '4?!' = 'W <K8?> '!?;' #B ' (; @

= ' C! ' ?!' ?C;' !!?;@ ' D? ' FK; ! 4 < >' D ' #B ' <?; ' ; AC8 ;8>' = ' NC 88>' K;?K?;# ?= ' = ' K;?9 > ' 2 ' E #B' @ ' !?; ' ; NC ; ' = ' ?<L < = ' #B ' A !#; # ' E #B =' C;AB' = ' ?<< !9 ?= ; ' ?!' (CKK8>' = ' JC # @ ' ?!' K @ ' =' 0 = 9 E ;# #?' @ C! ' K;? > ' !;?<' # < ' #?' # < ' '@?<L K # =# =C<D ;' ?!' ?;! ' E #B =' #B ;' ; K @# ' D?C= ' !?;' #B ' ; @ ' ?!' ?C;' !!?;@ ' = ' C! ' !?;9 ' ' #B >' E 88 D ' =!E ; D8 ' # #B ;' K ;; 88 = ' 2 ' E #B' @ ' !?; ' K;?B D # ' = ' !9 @B ;A ' =>' !! @ ;' ?;' (?8 ;' #?' W ' CK?=' ?;' K; ' =>' ?;! 4 E #B?C# #B ' @?=@C ! ' ?!' #B ' K ; ?= ' D? = ; 4 ?;' #?' # =' #B <' 8?=A 74 #B =' ?= ' > ' < T B 4 !C;#B #4 DC# #?' ; !#?; ' = ' A ' D @"' #B ' ' ?;! ' <K8?> ' =' < == ;' !?; ' =' A?? ' @ 4 C= ;' #B ' K =' ?!' ' <?= #B ' K >' #?' D ' ; # = ' =' < == ;' !?; ' ?!!' #B ' !! @ ; ' EB?' B 88 D ' !?C= ' #?' @?=#; = ' #B ' K; < ! 4 D L # ' #B ' K >< =# ?!' #B ' K; @ ' ! #B ' ?;! ' #?' #B ' !C< !! ;4 ' #8<' < ' B 88 D ' = #;C@# ' D !?; ' #B ' 88 ' E #B =' C;AB4 (B ;; !! 4 (# E ;# ' 89 8 ' ?!' A 8 # ' ?;' + KC# 4 ?;' JC # @ ' ?!' K @ ' =' #B ' ?C=#;>' = ' #?' #B ' = ' ?C;' ?> 88 K8 L C; ' =' #B ' K; < ! ' < >' D ' < ' KCD8 @"' = ' "=?E=' C;' E 88 ' = ' 2 ' B ;A ' >?C' #; @#8>' = ' ?<< = ' #B # =@?=# = =#4 #B ' C;' 0 ## ; ' =4 > ' K ! ' #?' #B ' < ;@ # ;?@ ' ?!' & =DC;AB' = ' 88 #B ;' < ;@ # ;?@ ' ?!' #B ' ' C;AB ' ?!' #B ' 1 =A ?<4 (2 88 ?> 8#>' ' A 8 #>' = ' (# E ;#;>4 = ' ?#B ;' K8 @ ' = !C ' 4 = ' #B ; ' =' ?C;' = < ' = ' C#B?; #>' ?K =' K;?@8 < # ?=' < " ' KCD8 @ # ?=' ?!' #B ' K; = ! ' = ' ! @"8 " ' #B # 88 ?C;' $?;@ ' 2,' 2 88 ' ?C;' 0 A ' < >' B ' =?# @ ' B ; ?!' 2 ' ? ' NC ; ' = ' ?<< = ' #B ' K; !! =# ' #?' D ' KCD8 @"8>' ; ' # #B ' B ' ?!' ;>' %;??K' = ' ?<K =>' ?!' C;' # = =A' $?;@ 4 #B # =?= ' < >' K; # = ' *A=?; =@ ') =' C= ;' C;' (A= # # & = 2 ;AB' #B ' !?C;# =#B' >' ?!' $ D;C ;>7 = '?!' ?C; A= ' #B ' !?C;#B' > ;' = ' #B?C = ' (F' BC= ; ' =>=#>' #B; 4 2 *% ' #B ' # ?=4 %B # =' #B ' @ ! ' ?!' #B ;' 8?@ '' ?;' #; =L =# 3C ;# ; 4 *!' =>' !! @ ;' "+ (?8 ;' B 88 =?# < " ' C ' K >< =# ?=!?;<' #?' #B ' ' @# ?!' K; >' ?C=@ 884 ?!' EB # #B >' # " ' ?=' =' #B ;' 3C ;L # ; ' ?;' B 88 @?<< ## =>' DC! ' =' #B ;' 3C ;# ; 4 *#' B 88 D ' 8 E!C88 = ' 8 !C<' #?' #B ' 0 = 8?; ' CK?=' EB?<' #B ' (?8 ;' E ' NC ;# ; 4 #?' =!#;C@# D !?; ' = ' JC # @ ' ?!' K @ ' ?;' = ' ?<< ! ?= ;' ?!' &F@> ' = ' ! ! < =#4 A #; # ' ?!' C;AB4 ?;' #B ' = F# = ABD?C; =A' ; #?;' D>' 2 #= ! 4 ?;' #B ' #B' ?!' #B ' / ;#>' 8 4 EB # E ' # " =' ?=' D>' #B ' !! @ ; ' ?;' (?8 ; ' ?;' EB # < A ' E ' ?= ' D>' #B <' =' #B ;' 3C ;# ; 4 2 B @B' D =A9 =9 !#;C@# ' = ' 8 NC # ' ' ' 4 #B ' JC # @ ' ?!' / @ 4 = ' #B ' ?<< ! ?= ;' ?!' &F@ ! ' = ' ! ! L < =#4 A #; # ' ?!' C;AB4 ;' #B ' = ABD?C; =A' ; #?;' D !?;' EB?<' #B ' 8C ' ?!' #B ' ' 3C ;L # ; =A' ?;' < A ' !! '' D ' =!#;C@# ' = ' 8 NC # 4 !8 '' D ' B?8 =' = ' ?D8 A ' #?' A ' #B ' 0 = 8?; ' CK?=' EB?<' #B ' !! @ ; ' ?;' ?8 ; ' E ; ' NC ;# ;

' + @8 ; # ?=' D ; =A' #B ' 8C ' ?!' #B ' 3C ;# ; =A' = ' < A ' C # = ' = ' ; = ' #B ' ?88 @#?;' ?!' #B ' !! >; ' #?' A ' 88?E =@ ' ?!' #B ' < ' #?' #B ' 0 = 8?; 4 ?C# ?!' #B ' !?; ' = ' ?!' B ' ! ' ?;' &FL @ ! 4 = ' #B # #B ' ?88 @#?;' ?!' #B ' (B>; ' B 88 B ' 88?E =@ ' #B ; ?!' !;?<' #B ') = ; 8 ' @ ;4 ' = ' =' \@ ' #B ' 0 = 8?; ' D ' ' % == =# ?;' ?#B ;' K ; ?=' #B # ' = #B ;' 8> D8 ' !?;' ! ' ?;' &F@ ! 4 *=' #B ' @ ! ' #B ' ; #?;' ?!' #B ') ;?C= ' B 88 B ' 88?E =@ ' ?!' #B ' < ' ?C# ?!' #B ' !?; ' = ' ?!' B ' ! ' ?;' &F@ ! 4 C ' = ' K > D8 ' D>' B <' %?' #B ' !! @# #B # #B ' % == =# < >' A # K >< =# #B ; ?!' = ' ; = ' #B ' ?88 @#?; ' ?!' #B ' ! ' 8 ' &F@ ! ' 4 #?' A ' 88?E =@ ' #?' #B ' 0 = 8?; ' ?;' ; #?;' ?!' #B ') ;?C= 4 ?!' #B ' (C<' #B # B 88 D ' @?=# = ' =' #B ' ' + @8 ; # ?=4 ?C# ?!' #B ' !?; ' = ' ?!' #B ' I 0 = 8?; ' ?;' ; #?; ' ! ' ?;' &F@ ! ' = ' #B ' ?8L 8 @#?; ' ; ' KK? =# ' #?' A ' @@?C=# #B ; ?!' #?' #B ') = ; 8 ' ?<< ! ;>' ?;' / >< # ;' ?!' #B?' ;<>' #B # B ' < >' ; # =' #B ' < ' ?!!' #B ' !?; 9 = ' ?!' #B ' !! @ ;' ?;' (?8 ; ' K >' = ' # ' B ; D>' + @8 ; 4 %B # !' #B ' !! @ ;' !? # KK8> ' #?4 ' ' KK? =# ' D>' #B ' !?; ' /;?@8 < # ?=' B 88 =?# ' ; ; ! ' #B =' #B ' !! @ ; ' / >' B 88 D ' 8> D8 ' ' E 88 ' #B ' (?8 ; ' K >' = 4 #B ' ?8L 8 @#?;' = ') = ; 8 ' @ ;' B 88 A ' 88?E =@ ' @@?; =A8>' = ' #B ' ?88 @#?;' = ') = ; 8 ' L @ ;' ; ' ; = ' #?' A ' #B ' ' B?E ?@ 4 C= ;' #B ' K =' ?!' K; # ?=4 D>' = ' ##?C; ' #B ' ; !?C= =A' ?!' #B ' + < A ' ?!' #B ' K ;#>' 8 ' = ' ; = ' #B ' @# #?' D ' KCD8 @"8>' ; ' CK?=' #B ' B ' ?!' ;>' A < =#4 %;??K' ?;' ?<K =>' ;>' # < ' #B ' < ' ' <C # ; 4 #B # C ' D =@ ' < >' D ' A =' #B ; #?

% 2 ' ;# ! @ # ' CK?=' (?C8 = ' ?= =@ ' ?!' #B ' *= K?! # ?=' ?!' #B ' 0?; ' 0 = ? ; ' = ' 1 ;= 4 C= ;' #B ' B = ' ?!' #B ;' /B> @ = ' = ' K?#B L @ ; ' D =A' K;? C@ ' = ' ; ' #B ;' D =@ ' !;?<' / ;8 < =# E ' &F@C ' D>' #?>' 0?; ' ?<< !L ?= ;' !?;' !?C;# =' > '#?' @D<#? = ' !;?<' #B ' >

% &* ' # ' AB' ?<< ! ?= ;4 = ' #B ' & # # ' ?!' / ;8 < =# +?' A; =# + K = B# ?=' #?' #B ' B ;; ! ' = ' ?#B ;' *=! ; ?;' JC A ' #?' ## = ' ! C! ' @# ?= ' ?!' <? =A' =?#E #B # = =A' ?!' #B ' ## =A' ?!' #B ' / ;8 < =#

% &' / ;8 < =# ?C;= ' # 88 #?' <?;;?E' D =A' #B ' S ' ?!' >' # # =' ' 8?@"' =' #B ' !?; =??=

,=+* .' I 6' Q' = .+ * ' -^48,-50K

: ** ' ,+* 0U % ,+' ' *)+ *

%' &+* ') 4

' , **4' 4+ 4, ***

/ & (' 4 = 'B ' ?88 '@ 88

<)+66 , '
+ *',+*
>* -& 0

$ *(' ?8> %# &8 @# ' !?;' #B ' C;AB' !7
; @B =' ='K8 @ '?!' =;>' C84 B =A'# " ='
#B ' #B' ?!' 88 A =@ ' = ' #B' ?!' / ;8 < =#4
= ' CD @; D 'B ' 88 A =@ ' = ' ! C; =@ ' E '
< ## 4 ?=!? ; ='#?' B ' <C< ! ?=

4 %' = =#'#B '8?> '' C; =A' = '/ @" =A'
?!' ;; =A' ;' (8<?= '$ B

S' ' (& *) &' 0 +' Q 0 + '%B '
1 =A' = '3C = ' # ' ?= ; =A'B?E' <C@B'
#B '#;C ' = '8?> 88' C; =A' = 'K @" =A'?!' ;L
; =A' = '(8<?= '! B'#?'D ' FK?;# '!C;#B'?!'#B '
1 =A ?<'@?=#; DC# '#?'#8 ' =@ < =#?!' %; '
= 'A = ; 88')?? '?!'#B ' # ?='+?'#B ; !?; 'E #B'
9 @ ' = '@?= =#?!'#B '& # # '?!'/ ;8 < =#(# L
#C# ' ; =' = '&= @#4'#B #' '' " '#?'D ' < '
B ; !# ;' !?;' &FK?;# =A' ;; =A' ?;' (8<?= '! B4
D '< '?!'E 88' ?= '1= KK 88'?;' "' % <D ;'
!; '!;?<' 88' 2 B # 'E?? '?;' 2 ?;< 'D?88 4 #B '
B '?!'#B ' 8"' ?E8 4 #B ' # K' ?;' # '?!' '
#B ; 'K ;#'?!' ='*=@B' #8 #='#B @"= ! ' = '#B #'
=?= '?!'#B ' # 'D ' ; !#'?;'@8 !#4 = '#B #' 8"'
;; 86' !?;' FK?;# =A' ?!' ;; =A' @?=# =' AB#'
)88?= ' = '#E?' K>=# ' = ' 8"' ;; 88' !?;' FL
K?;# =A' (8<?= '# =') 88?= ' = 'D ' !C88' B??K '
#8 #' ='#B ' ?= ' = ' = 'B ' AB#' ??K '?='
#B '?#B ;' = ' = ' (@"8 " '#B #'#B ; ' D ' " K '
=' @B' ?>' 88' C;AB4 EB ; ' 8" '!?;' FK?;# ; '
< ' ' DC;= =A' (88' !?;' < ;" =A' ?!' C@B' 8"4
= '#B #'#B ' A #; # ' ?;' + ='?!') 8 '?!'#B '
; K @# ' C;;?CAB ' KK? =#' = 'B?= #' ??K ;4
!?;' EB?<'#B >' E 88' D ' = E ; D8 '!?;' # =A' = '
#;> =A' 88' ;; 88 '< '!?;' &FK?;#' = '#B #'#B '
< " ;' ?!'#B ' 8"' KC#' B '?E=' ;" 'CK?='#B <'
D !?; ' B ' 88'#B <4 = '@ 88' ??K ;' KK? =# '
D>' ' ?> 88' C;AB' #?' #;>'#B < ' = '!'#B >'D '
!?C= ' C!! @ =#'#B #' B 'KC#'#B 'KCD8 @"' (88' ?!'
#B ' C;AB' CK?='#B <4 !!?;' EB @B' #B ' ' ??K ;'
'#?' B '!?C;' B 88 =A' @?# 4 !?;' 8"' O #' !;?<'#B '
< " ;' = '#B #' 8"' ;; 884 EB @B' !# ;' C@B'
#;> 88' B 88' D '!?C= ' = C!! @ =#4 D '@?=! @ # '
= ' K? 'CK?='!?;'#B 'C '?!'#B 'K??;' E #B ='
#B 'K ;?@B' EB ; '#B >' ; ' < '&F@ K# =A' C@B'
K ;# '#B ; ?!' '#B ' ; K @# ' A #; # ' B 88'
#B ="' ! ##'#?' A '#?'#B ' ??K ;' 8 #?;' E #B ='#B '
C;AB' !?;' B ' =@?C; A < =#' = '!'#B ' '
8" ' B 88' D '!?C= ' = C!! @ =#4 !# ;' #B 'KCD8 @"'
< ;"'?!'#B ' C;AB' ' ?' !! F '#B ;?=4 #B ' ??K ;'
EB?' ! # '#B ' < ' '#?'K >'#B ; !?; ' F'K?C= '
@?# 4 !?;' 8"' O #' = 'K;?K?;# ?= 88>'!?;' 8"' ;; 884

= ' EB # ;' 8"' *B 88' D ' KC#' D? ; 4 D !?; '
#B >'D ' # ' = '< ;" ' ' ' 4#B ' < ' ; '
#?'D ' W ' = '@?=! @ # ' ' = C!! @ =#' = ' KL
K8>' '!?;'#B 'C! ' D? ' < =#?= ' = '(@"8 " '
#B #' 88' ;; =A' = '(8<?= '!?;'&FK?;#'D '< '
K>= ' = '@C; 'E #B'!!; = B' >'?;'(K = 8B'(8#4
?;'E #B'(8#CK?='(8#< '?!'!?;; A='(8#4 = '
#B #' 88' ;; =A '?!'&FK?;#'X &F@ K# =A' C@B' ;L
; =A ' ' ; ' FK?;# '#?'#B ' (?C= 4 D !?; ' #B '
=#B' >'?!'(K# <D ;' > ;8>'D '; K @" 4 E 88'
! 88 ' = 'E 8B ' = ' ='8 " '< == ;' %B #' #B '
A !#; # ' =' 8"' ?> 88' C;AB' KK? =#' ='B?= #'
< ='?!'C A < =#' = '!" 88' =' C; =A' = 'K @"L
=A'?!' ;; =A4 !?;'EB?<'#B >' B 88'D ' =!E ; D8 4
#?' ! # ' 88' ;; =A ' FK?;# '?C#'?!'#B ;'K; @ =#
EB?' '#?' B ' 'KCD8 @"' DC;= =A' < ;"4 = '#?'
!! F'#B '! < ='CK?=' 88' 8" 4 EB @B' ; '!?C= '
C!! @ =#8>' C; ' = 'K @" ' = '!' =>' B 88'D '
!?C= ' = C!! @ =#8>' C; '?;'/ @" '!# ;' # =A'
= '#;> =A'#B ; ?!'#B >' ; '#?'D ' W ' = ' ?=L
! @ # '!?;'#B 'C! '!?; ' = '#B '! ; # C> ;'
' ='#B #'@ '#?'B ' ; @?C; ' A = #'#B ' C; ;'
= '< " ;'?!'#B ' ' ;; =A 4 C#'!'#B ' =!C!! 9'
@ =@>'#B ; ?!'D ' !@? ; ' #'#B ' /?;#'?!' + !9'
@B ;A ' = 'D '< ' KK ;4 #B ;'D>'8 A 88' K;?L
D # ?='!;?<'#B #'K8 @ '# " ='D !?; '#B ' + ='?!'
)8 '?; ;@B =#' JC A 4 ?;' D>'#B ' ## # # ?='
CK?=' #B'?!'#B '< # ;'?!'#B '(B K4 EB?' FK?;# '
#B ' < 4 = '#E?'< ;@B =#'?!'A?? '! < '+ 9'
@8 ; =A'#B ' '*= C!! @ =@>4 = '#B #'#B ' < ='
B KK = '#B;?CAB'#B '=?# ; AB#' C; =A4 < " =A'
?;' / @" =A' ?!'#B ' ;; =A ' #! ; #'#B ='#B '< ;L
@B =#' &FK?;# ;' ' #?' B ' ; @?C;!'!?;'#B 'EB?8 '
< A ' C # = ' D>'#B ' = C!! @ =@>'#B ; ?!'
A = #'#B '! ; #'< " ;' = ' C; ;'?!'#B ' ' ;L
; =A ' = '!?;'; = ; =A'#B ' '; @?C;!' !! @#C 88'
88' C; ; ' = '< " ; ' ?!' ;; =A 4 *B 88'KC#'#B ;'
?E=' < ;"' CK?=' #B ;' 88@ D>' 'DC;= =A' *;?=4
= 'EB # ;' ;; =A ' ; ' FK?;# 4 E #B?C#'#B '
< " ; ' < ;"' CK?=' #B ' 88@4 #B ' < ;@B =#' B '
B '=?'; @?C; '!?;' + < A '#B;?CAB'#B '*= C!! L
@ =@>'#B ; ?!' = ' =' @ ! ' =>' 88@ E #B' ;L
; =A'D ' B KK '!?;'&FK?;#' E #B?C#'#B ' ' < ;"4
#B ' ; K @# ' #?; 4 EB?' B 88' < " ' + !@? ;>'
#B ; ?!4 ; ' ; D>' C#B?; W ' = '*<K?E ; '#?'
W ' = '@?=! @ # '#B ' < ='!?;'#B 'C '!? '
'O " 9'%B ;' # 'E #B' @?=! =#' !?; '
T =' = ' KK? =#'#B ' ' # ; '!?;'#B ' 9'
; 88' C;AB '#?' D ' < ## '#?' #B #' #;C #4 CK?='
#B ;' # " =A' = ' #B' '! 8' < = #; # ?= 4
= '! = =A' C!! @ =#' C# ?='!?;'#B #' !! @#' = '
#B #'!?;'#B ;'K = '#B ; =4 #B >' B 88' B ' (F'
B 88 =A' (@?#'!;?<'#B '< ;@B =#?;' E= ;'!?;' 8"'
O #'#?'D '< ;" 'D>'#B <'='< == ;'!?; ' = '
$; ;'*#' 'KK? =# '!?;'K; =# =A' 88' D # '
#B #' < >' ;; ! ' D #E F#' #B ' ! #?; 4 * * ;@B =#'
= ' C; ; '?!' ;; =A' #B;?CAB' #B ' #?; ' #B ;'
; !C8 =A' ?;' 8 > =A' #?' < ;"' ;; =A ' = '(8L
<?= 4 #B #' ; ' C!! @ =#8>' C; 4 CK?=' K; # F#4
#B #' #B >' ; '=?# C!! @ =#8>'@C; '*='#B #'@ !

CK?=ˢ =>ˢ C@Bˢ !! ; =@ ˢ =ˢ C;AB ˢ JJ?> 88ᶠ #B ˢ A !#; # ˢ ; ˢ #?ˢ @ 88ᶠ ! ˢ B?= !#ᶠ < =ˢ E 88ᶠ " 88L ˢ =ˢ C; =Aˢ ?!ˢ ;; =Aˢ = ˢ (8<?= 4ᶠ #?ˢ 9ᶠ @> ˢ =>ˢ C@Bˢ !! ; =@ 4ᶠ = ˢ =ˢ C;AB ˢ ?!ˢ L A 8 #>ˢ ?;ˢ ;?=>ˢ ?;ˢ 0 = E ;#4ᶠ #B ˢ 88 ˢ ?!ˢ L A 8 #>ˢ ?;ˢ B ˢ + KC# 4ᶠ = ˢ #B ˢ ;?=ˢ ?;ˢ B ˢ ' ˢ9 ; K @# 8>ˢ ˢ #?ˢ @BC ˢ #B ˢ8 " ˢ =C<D ;ˢ ?!ˢ B?= #ᶠ < =ˢ !?;ˢ #B #ᶠ = 4ᶠ = ˢ #B ˢ ! ˢ B?= #ᶠ < =ˢ ; ˢ ! ; #ᶠ #?ˢ D ˢ E?;=ˢ CK?=ˢ #B4ᶠ D !?; ˢ #B >ˢ K;?@ ˢ #?ˢ @?A=?!@ ˢ ?;ˢ @> ˢ =ˢ =>ˢ C@Bˢ < ## ;ˢ = ˢ #B ˢ #?; ˢ ! 88ᶠ D ˢ ?D8 A ˢ #?ˢ !! Fˢ #B ;ˢ < ;" 4ᶠ !ˢ #B ˢ B?= #ᶠ < =ˢ B 88ᶠ @8 ; ˢ #B <ˢ #?ˢ D ˢ8?> 88>ˢ C; 4ᶠ = 7ˢ #B #ᶠ C= ;ˢ #B ˢ K = 8#>ˢ ?!ˢ # =ˢ K?C= ˢ (@?# ˢ #?# ˢ N C?; ˢ = ˢ #B #ᶠ #B ; ˢ D ˢ = ˢ @#ˢ ?!ˢ ?C;#ᶠ *=ˢ K; =@ ˢ ?!ˢ #B ˢ ; K @# ˢ A #; # ˢ < ˢ #B ; CK?=ˢ C##ᶠ =ˢ; A ; ˢ ?!ˢ #B ˢ A; #ᶠ # =@ ˢ ?!ˢ ?< ˢ K8 @ ˢ ?=ˢ #B ˢ E # < ˢ = 7ˢ =?;#B ;=ˢ ? !8ˢ = ˢ *!8 ˢ EB ; ˢ ;; =Aˢ ; ˢ =ˢ C ˢ #?ˢ D ˢ C; ˢ = ˢ K @" ˢ !;?<ˢ =>ˢ C;AB ˢ ?> 4ᶠ C B ; 9ᶠ #B;?CABˢ #B ˢ #?; ˢ @ ==?# < ;"ˢ #B ˢ ˢ ;; =A4ᶠ ˢ E 88ᶠ = ˢ8?> 88>ˢ @C ; ˢ = ˢ K @" ˢ %B ; !?; ˢ *#ᶠ ˢ (# #C# ˢ = B = ˢ %B #ᶠ #B ˢ &FK?;# ;ˢ ?!ˢ C@Bˢ ;; =A4ᶠ EB?ᶠ B 88ᶠ DC>ˢ #B ˢ < =ˢ !;?<ˢ #B ˢ EB?ᶠ @C; ˢ #B <4ᶠ B 88ᶠ D ˢ8> D8 ˢ !?;ˢ #B ˢ *= C!8(@ =@>ˢ ?!ˢ #B ˢ !"4ᶠ = ˢ #B ˢ D ˢ = ˢ !8?> 8ᶠ C; =Aˢ ?!ˢ #B ˢ ;; =A4ᶠ @?=!?;<ˢ #?ˢ #B ˢ K; =#ᶠ @#ᶠ =ˢ #B ˢ C<ˢ ?!ˢ !?;#>ˢ /?C= ˢ (@?# ˢ <?= >ˢ ?!ˢ K = 8#>ˢ !?;ˢ 8"ˢ 0 #ᶠ?!ˢ #B ˢ ˢ &FK?;# ˢ 7; =A4ᶠ EB @Bˢ B 88ᶠ D ˢ !?C= ˢ C= C 8>ˢ C; ˢ ˢ ˢ 5ˢ = ˢ #B #ᶠ D>ˢ 0 9ᶠ A '*ˢ K;?D # ?=ˢ?;ˢ D>ˢ ## # # ?=ˢ = ˢ @8 ; # ?=ˢ =ˢ < == ;ˢ D? ˢ <?# ?= 4ᶠ #?ˢ D ˢ KK8> ˢ #?ˢ #B ˢ D L B??!ˢ?!ˢ #B ˢ + ! ? ; ;ˢ 88 = ;8>ˢ = ˢ!?;ˢ #B ˢ D ## ;ˢ =@ =Aˢ ?!ˢ #B ˢ %; ˢ ?!ˢ &FK?;# =Aˢ (8<?= ˢ ! B ˢ%B ;ˢ # ˢ = ˢ& # # ˢ!?; ˢ +?ˢ C#B?L ; W ˢ = ˢ <K?E ;ˢ #B ˢ A !#; # ˢ?;ˢ J8 =ˢ?!ˢ) 8 ˢ ?!ˢ 8"ˢ ?> 8ᶠ C;;?CAB4ᶠ #?ˢ KC#ᶠ #B ˢ @#ᶠ = ˢ?#B ;ˢ @# ˢ?!ˢ / ;8 < =#ᶠ < ˢ #B ; = =#ᶠ #?ˢ 88ᶠ C ˢ&F L @C# ?=ˢ + @8 ; =Aˢ ;#B ! ˢ 0 " < ˢ #ᶠ ˢ B D>ˢ FK; ! 8>ˢ K;? > ˢ = ˢ @8 ; 4ᶠ ; #ᶠ = #B ;ˢ #B ˢ K; ! =#ᶠ @#4ᶠ =?;ˢ =>ˢ #B =Aˢ #B ; =ˢ @?=# = ˢ ! 8ˢ K; C A ˢ #B ˢ K ;# @C8 ;ˢ AB# ˢ ?!ˢ =>ˢ C;AB ˢ ?> 8ˢ E #B =ˢ #B ˢ 1 =A ?<4ᶠ DC#ᶠ #B #ᶠ #B ˢ < =ˢ D ˢ ; ˢ#?ˢ #B <4ᶠ ˢ @@?; ˢ ?!ˢ #B ˢ 0 Eˢ = ˢ ("8 " ˢ + @8 ; =Aˢ %B #ᶠ #B ˢ @#ᶠ ˢ = ˢ B 88ᶠ D ˢ DC#ᶠ K; C @ ˢ#?ˢ#B ˢ K?E ; ˢ = /; 8 A 4ᶠ AB# ˢ = ˢ JC; @# ?=ˢ ?!ˢ #B ˢ ?C;#ᶠ ?!ˢ < ; #>

%ˢ =ˢ ! ?; ˢ ?!ˢ #B ˢ ?C=# ˢ ?!ˢ 2 ><

ˢ / %& %* ˢ A; =# ˢ #?ˢ < 8#?=ˢ =/;?# @#? ?!ˢ & =" 88ᶠ !?;ˢ !?C;# =ˢ > ˢ #?ˢ ?<K ;ˢ = ˢ 9ᶠ = ˢ 1 8 7ᶠ K?= ˢ =ˢ #B ˢ @# ?=ˢ #ᶠ #B ˢ *= # =@ ˢ ?!ˢ #B ˢ B 8 ; =ˢ ?!ˢ (;ˢ J < ˢ (# E ;#ᶠ ?!ˢ C8#= ! ˢ !?;ˢ K;? =Aˢ #B ˢ # =?;ˢ ?!ˢ DC;=#ᶠ 2 ; # 4

% &ˢ / ;8 < =#ᶠ ?C;= ˢ #!88ᶠ ?= >ˢ = F#ᶠ #ᶠ % =ˢ ˢ 8?@"ˢ =ˢ #B ˢ $?; =??=

%ˢ &+* ') 4

ˢ , 4ᶠ 4+Xi4 , ***

/ & (ˢ ˢ = ˢ #B ˢ ?88 ˢ @ 88

(* ˢ / #; @"ˢ A >ˢ ?!ˢ ?>= ˢ B =Aˢ KK8> ˢ #?ˢ #B ˢ / ;8 < =#4ᶠ #B #ᶠ =ˢ ; A ; ˢ ?!ˢ B ˢ D =@ 4ᶠ D>ˢ = ˢ ; ?=ˢ ?!ˢ B ˢ K; #ˢ !! ; 4ᶠ B ˢ $>= ˢ < AB#ᶠ D ˢ ; < ## 4ᶠ B ˢ E ˢ !@B ;A ˢ @@?; =A8>4ᶠ

% &ˢ & ;8ᶠ ?!ˢ (#; #B<?; ˢ A= ˢ #B ˢ ! C; =@ 4ᶠ P 1 *ˢ+,ˢ * D +* = ˢ#??"ˢ B ˢK8 @ ˢ =ˢ / ;8 < =#

0 & , + & ˢ (# KB = ?=ˢ &8 @# ˢ !?;ˢ 1 89ᶠ ?<<!9 ; ==>4ᶠ =ˢ K8 @ ˢ ?!ˢ) ?;A ˢ #?=4ᶠ B =Aˢ # " =ˢ ; ==>ˢ #B ˢ #B 4ᶠ = ˢ (A= ˢ #B ˢ 88 A =@ ˢ = ˢ ! C;9ᶠ 4 =@ ˢ 2 ˢ < ## 4ᶠ @?=!?;<ˢ #?ˢ ˢ ?<< ! ?=

% &ˢ / ;8 < =#ᶠ ?C;= ˢ # 88ᶠ 2 = >ˢ = F#ᶠ #ᶠ # =ˢ ˢ ?@"ˢ =ˢ #B ˢ!?; =??=

%ˢ &+* ')

!ˢ , **4ᶠ 4+@4F@

/ & (ˢ ˢ = ˢ #B ˢ 8 ˢ !

ˢ & %*$* %&ˢ ?=ˢ (?C8ᶠ = ˢ ?= @ =@ ˢ K;?L C@ ˢ !?;ˢ #B ˢ & ;8 ˢ ?!ˢ) 88?E >ˢ ?!ˢ ˢ *= K? 9ᶠ # ?= ˢ = ˢ #B ;CK?=ˢ #B ˢ & ;8 ˢ D =@ ˢ !;?<ˢ / ;L 8 < =#ᶠ &F@C ˢ D>ˢ B ˢ); @ ˢ #B ˢ 0?; ˢ AB ˢ ?<<B ?= ;

M 1 *,ˢ+,ˢ 3 +? ˢ G- .0

%ˢ &ˢ D =@ ˢ?!ˢ(;ˢ+C=@ =ˢ <KD 88ᶠ?!ˢ C@B =9ᶠ D; @"4ᶠ ?= ˢ ?!ˢ #B ˢ ?<< ! ?= ; ˢ !?;ˢ #B ˢ (B>; ˢ?!ˢ ;A>8 ˢ F@C ˢ 8 " E >ˢ *=ˢ ; K @#ᶠ?!ˢ B ˢ 0 >ˢ F@C k *= K? # @ 4

<-+6 6 ,ˢ

& +ˢ D>ˢ #B ˢ 0?; ˢ B =@ 88?;ˢ #B #ᶠ #B ; ˢ D =Aˢ ; 86ᶠ (< =4ᶠ ?=ˢ D? ; ˢ #B ˢ $8 #ᶠ?!ˢ < ;@B =#ᶠ (B K 4ᶠ K; =#8>ˢ A? =Aˢ #?ˢ ?88 = 4ᶠ d<?; -ˢ #B =ˢ #B ˢ ?; = ;>ˢ =C<D ;ˢ ?!ˢ (< =ˢ = @ ! ;>ˢ !?;ˢ (8 =Aˢ C@Bˢ (B K 4ᶠ #B ; ˢ < AB#ᶠ D ˢ =ˢ ?; ;ˢ ?!ˢ / ;8 < =#ᶠ !?;ˢ ! ## =Aˢ C@Bˢ (< =ˢ !# ? ; ˢ = ˢ =ˢ ?; ;ˢ -

M2*. *ˢ ˢ H 6 b

C

d2 &+, D 0 - (0[

: ** +
&&* +*
+,J+*, *
* +
-)+6
6, + *

@?; BA8>A; =# !?;#B # !$@!@# #?D F @C# D># # ;2 88 < ; " = 4 ?<< ! ?= ;!?;#8 C;AB?!C8;?!

% &/ ;8 < =# ?C;= # 88$;> ># # =# 8?@"= #B $?; =??=

%& +* ') 4

A]9] ' ')])6

/ & (, U#B ?88@88

% &0 ; ?!%?;E?? 8 !?;#B (B>; ?!(8L " ;"4 #B 0 ; ?!1 'DC< !?;#B (B>; ?! ;4 2 88 < ;? >!?;#B C;AB?!$?;; ! 4 J < (?EA 88!?;#B C;AB?!1 =#? ;4 = ?D ;# $?;D !?;#B DC;AB?!*= ;C;> 88 ?<< ! K= ; &8 @# = #C;= #?CKK8># B @ =@ 8 # 8> + @8 ; 4 B =A# " =#B #B @ =@ 8 # 8> + @8 ; 4 B =A# " =#B #B = !CD!@; D #B 88 A =@ = ! C; =@ E ; < ## 4@?=!?;<#?#B ; ?<< ! ?=

% &* # AB ?<< ! ?= ;4 = #B & # # ?!/ ;8 < =# ?= ; =A%B ##B *$; B?8 ; ?!#B B>; ?!$?;! ;4 B =?# > # 8@# =>K ; ?=#?; K; ! =##B <=K8@ ?!#B @ (;) ?;A ||" =W =?;B < &8@# ?=#?!#E?# # ?= 86 ?<< ! ?= ; 4 EB@B #B # (B>; KK? =# #?B D>#B @# ?!#B (@?= (! ?=?!#B / ;8 < =# %B ; !?; %B >; =NC ; #B !!; B?8 ; ?!#B (B>; #?< # # #B %?E=?!!?;! ;4 D =A #B B C;AB?!#B (B>; CK?=#B #B ;#>9 #B >?! >*= # =#4 = #?&8@#! ## = NC 8!> K ; ?= #?; K; ! =## (B>; @?=!?;<#?#B @# ?!/ ;8 < =#4 = +? A ; ;= 2 ;; = #?#B (B ;; !?!#B (B>; ?;B + KC# #?#= < # #B %?E=?!!?;! ;4 D =A#B B C;AB?!#B (B>; CK?=#B #B ;#>9 #B >?! >*= # =#4 = #?&8@#! ## = NC 8!> K ; ?= #?; K; ! =## (B>; @?=!?;<#?#B @# ?!/ ;8 < =#4 = +? A ; ;= 2 ;; = #?#B (B ;; !?!#B (B>; ?;B + KC# #?#= < # #B ; !; B?8 ; EB?; @ K D8#?&8@# ?<< !L ?= ; 4#B ##B >< >B =?# @ #B ; ?!

%!?;# " =A#B #B?!88 A =@ 4 = C; =@

U $ (' #B *<K? =A = # " =A#B #B?!88 A =@ 4 = #B @C;; =# / ;8 < =#4 B ; #?CD ?>= E 88 D !C;#B ;(@C; #>#?#B / ;?# # =# 8 A ?= = #B ;* #) ? ;=< =# =#B K; =# FA =@ %B ; !?; %B 1 =A = 3C = J # 4 E #B @ = @?= =# ?!#B & # # ?!/ ;8 < =#(# #C# = ; =%8 ##B # #B !?; ! C; =@ D CD @; D D>88 ?D8 < = = #B ;8 # (?= D =AK #EF<#>?= > ; ?!A 4 = D>88 K ; ?= =!! @? = @ ?!KCD8@"%;C #4 88 &@@8 8 !#@ ' = 8 # ;>4

%?E ##4D 88< <D ; ?!/ 8 8= =# = 8 @#?; ?!< <D ; ?!/ ;8 < =#4 88K; >?C= 88?; 4 88 !!@ ; ?!(# # 4 = ?!#B ;?E=4 88#B O?; ?!(! ?= ?@ # = 88?#B ; < <D ; ?!#B ?'A ?!JC # @ 4%B O?; ?!%B C;> = &F@B NC ;4 O?; ?!JC # @ ;> = 88 <L D ; ?!#B ?C;# 4 = 88 !!@ ; = < <D ; 9 ?!#B < ; #>4 = 88 !!@ ; = <D ; ?!#B B =@ 88 ;>4 2 ; # ; = C= ;1 K ; ?!#B /; >(884 /? # < # ; = #B ;8 ;" 4 88 ?<< ! ?= ; #?#B ?= =# ?=?!C;;?E 4 = #B ;8 ;"4 = #B (; =# EB?? ?!!@ # C= ;B <4 = #B A =# !?;4#B ?> ' C;;?E 4 %B ?= ; #?;?!#B (@?# K; 8 A = = ?88 = = #B $ @#?; # #B (# K8 K?;# 4 '?88= 88 = ?#B ;?<< ! ?= # !!@ ; ?!#B %; = 9 = 4 88 K ;!?= EB? ; ?;B 88 D ?<< !L ?= ; !?;8C # ?=4 8C # ?=4 ?;@# !> =A 8C # ?=?!O = 4 = 88 / ; ?= B =A B ; 9 # D8 !!@ !;?<#B 1 =A4 =?# 8; ><=# ?=L = =#B @#4 88K; @B ; = = # ; ?!#B)?K ' EB # ?< ;4 = ' 8 ;" = BC;@B JC @ #?; = K; @ =#?; 4 = 88 ; #?; ?# 9 =A =#B @ 88 =A ?!= # ; = 88 ?#B ; EB # ?< ;A =A ?@ =#B = 88 =A ?! = # ; #B ;# # =A!?;#B ! !! @#4 88K ;L ?= =#B 1 =A ?<= < ?;#?D = < JC A =?<< ! ?= ?!JC # @ ;> B <D ; ?!#B ?<< ! ?=!?;8C # ?=?!% >= = K8 =# # ?=?!1 ;" 4 ?;?#B ;?<< ! ?= ?!/ ;L 8 < =#4 88 (B ;; ! 4 (# E ;# 88 ?!?> 8L # = = A 8 # 4 ?<< ! ; = #B ;+ KC# 4 8 ;" = !! @ 88 4 JC!# @ ?!/ @ ?<< !L ?= ; !?;#B (CKK8> = &F@>! 4 !! @ ; ?!#B =# E #B #B ;8 ;" = !! !@ 88 88 /;?T D !?; => ?!#B ?C;# D? < =# ?= 4 88 2 ; # ; #?# #B (A= #4 88KCBB@"?# ; = ?#B ;K ; ?= <9 K8?> =2 ; # =A ?; A =# =A4 %B O>?=1 =A # ;< 4 %B O>?=+ KC# 4 ; C8 * @ ; /C;9 =# = < ! =A ; # ;< = #B ;8 ;"4 B <D ;8 = 4 ?88 @#?; 4!! ;<?; ; 4% @" < =4 (CD9 ?88 @#?; ?!#B ;J # ;?E= =# 4 C!#?< 4 !! ! < =#4 &F@>! !B?K =# 4 9 @ = (# K = ?;=>?#B ;<?= > D 8?=A =A ?; #B # B 88B KK =#?D 8?=A#?#B ;J # 4 88 (C; > ; = E # ; !?;#B C!#?< = &F@>! 4 = 8 ;" =>?!#B !! @ ?;*<K8?>< =# 4 = 8 ;" ?!?@NC ## 4 88 A #; # 4 + = ?!) 8 4 E #B #B ;?C= 864 %B ! C; ; ?C= 88?; = 8 ;" ?!C;AB ?> 88 = ?!A 8 #> ?; C@B ?!! @ # !?;#B <4 88 + @?= ?!%; = + @?= ?= = ; =#B C;AB 4 = C@B B => ? @ =&8 @# =A?!+ @?= ?!%; 4 E #B "8 ;" ?!%; 4 88 J 8?; = 1 K ; ?!K; ?= = C= ;1 K ; = #B ;8 ;" 4 = 88 < # ; = ?@#?; = ' = ;! # ? ' A ?; (B??88 4 = 1 K ; ?!KCDB@"O L D; ; 4 88 B K8 = = $ < 8 = K A?AC =) ? ;=?C; #?B 8 ; = ?C#B4 88?!! @ ; = #B ;<> !!?;# =) ;; !?= = 88 < # ;

?i' (B K' ='#B ';< # ' 88 EB @B' K ; ?=' =' K;' >' ?C=@ 88 IB 88 KK? =#4 =' #B '$ @#?;' #' (# K8 ' /?;'# 'D i?;'#B ' ?=' ; #?;'=' B ' ?C;'#'> :>'?=' ='#B ' 8C # ?=';?i'% >=' ' <D<'?i'#B ' ?<=' i ?=i?;' .2# ;' #B 7 ' #B' #B '(# K8 ' /?;'# 4 EB?' ; '#?' D ' ;' #B '$ '#B' =' i Di@; D '#B ' < ' ='#B ' C; = 4 #E F# =' /8 =# ; ?='?i'& ;'' ^Y' ?i'?#B ';' ?<< i @ ?=' D i?;' #B? ' ; K @# ' ?<< i ?= 5 (B ;; i 4 (# E ;'# 4 ' ?i' ?> 8# ' =' A 8 # 4 ?< = i ;' =' #B ';' + KC# 4 8 ;'' =' ?i' 88' @ 88' D i?; ' #B ' ; K @# ' ?C;'# JCi# @ ' ?i' K @ 4 ?<< i ?= ;' i?;' #B ' (CKK8>' = ' &F@ 4 D i?; ' #B ' ; K @# ' ?C;'# 4 JCi# @ ' ?i' K @ 4 ?<< i ?= ;' i?;' #B ' (CKK8>' = ' &F@ 4 D i?; ' #B ' ; K @# ' ?C;'# 4 JCi# @ ' ?i' K @ 4 #8# ';< # =A'%B ') = ; 8' #B ' =#D i?; '#B ' =#4 (@; # ?C=@ 88 4 = ' 88?#B ';' ii @ ;'?i'#B ' =#4 D i?; '#B ' ?88 A '?i'JC # @ ' = '?#B ;' K = =A' CK?='#B <4D i?; '#B ' (i ?=4?;'D i?; '#B ' >' ?C=? 884?;' C@B '#B ' ?C=@ 88 IB 88 KK? =#'%B ' 0?;' ?i'JC # @ ' >' = '#B? ' K = =A'CK?='#B # ?C;'#4 ='#B 'JC # @ ' ?C;'#4 %B '0?; ' = '?#B ;' < <D ; '?i'#B 'K&F@B NC ;'4 D i?; '#B 'K&F@B NC ;'4 D i?; '#B ' ?C=@ 88 B 88 KK? =#' %B ' 0>?='+ KC#' ; C8 '/C; =#' = ' =A' ;' # ;< 'E #B'#B ' 8 ;'''D i?; '#B '0>?='# =' D ' ?C;'#4%B '< @ ; 'D i?; '#B ' K @# ' ?C;'# EB ; ='#B >' ; 4?;'D i?; '#B 'EB?<'#B ' ?C<' @'8 B 88 KK? =#' B <D ;8 = 4 ?88 @#?; 4ii ;'<?; ; ' % @'' < =' = '(CD9 ?88 @#?;'?i'#B ' ;'?E=' =#' C ?'< 4 &F ='#B ' =' B?K' =# 4 (C; > ; 7' 2 # ; ' = '#B ';' 8 ;''D i?; '#B '0?; '?i'%i 9' C;'>' = '&F@B NC ;'4 ?;'D i?; 'EB?<'#B >' B 88 #?4' =#5 ?88 @#?;'?i'#B '(CKK8>' = '&F@ i 'D L KK? =#5 ?88 @#?;'?i'#B '(CKK8>' = '&F@> 4 i?;'#B ' ?<< i ?= ;' ?i' (CKK8>' = ' &F@ 84 %B 9' A #;' # '+ ='?i') 8 'E #B'#B ';' ?C=@ 84 %B 9' C; ; 4 ?C=@@88?;' = ' 8 ;'' ?i' C;'AB' ?> 88 K;' >' ?C=@ 88 =A'?i' + @?=' ?i'%; ' = ' 8 ?'&@ @#=A'?i' + @?= ' ?i'%; ' = ' 8 >?'&F@ K#=A' #B ' ?=' D i?;'#B ' ?=' ; #?;' =' #B '$ @#?;' # 8 ?'&@ K#=A' #B ' ?=' ; #?;' =' #B ' ?=' ; #?;' =' #B '$ @#?;' # '(# K8 ' /?;'# 4 EB?' ; '#?' D ' ;' #B' '(# K8 ' /?;'# 4 EB?' ; '#?' D ' ;' #B' #B '(# K8 ' /?;'# 4 EB?' ; '#?' D ' ;' #B' = 'i Di@; D '#B ' < ' ='#B ' C; = 4 #E F# = ' #B ' i i# =#B' >'?i' CAC #'=F#5 = ' #B ' ' ' #B ' =' i C; =@ ' iE?;'=' = ' CDi ; D ' ' D? 4 ;'#?' D ' ;' @?; ' =' #B ' A # ;'?i'#B ' ; K @# ' ?C;'# ='#B ' ?<< i ?= ;' i?;' #B ' (CKK8>' = ' &F@ 4 D i?; ' #B ' ; K @# ' ?C;'# 4 JCi# @ ' ?i' K @ 4 #B ';?i4 C= ';'#B ' 8 ;''4 i?;' C@B ' #B ' ?C=@ 884 ?;' C@B ' #B >' B 88 KK? =#L (B K' ='#B ';< # ' 88 EB @B' K ; ?=' =' K;' >' ?C=@ 88 IB 88 KK? =#4

?;' &F@B NC ;4 ?;' B 88 K; =# =>' (A= #C; ' ?!' / = ?=' < ! ?=4 ?;' @?=# = =A' ' + '=? ?' + 9' <C 4 ?;' ?!' =>' ?#B ;' C 8 #>4 &F@ K#) !# ' ?!' & @B #4 ; ' #?' # " ' #B ' ' #B' = ' ! C; =@ ' D !?; ' ?D# = =A' #B ' ') !#4 ?;' K ! =A' #B ' ' (A= #C; 4 ;# !> =A' C@B' ?!' #B ' !?; ' / ; ?= 4 ' ; ' ?;' B 88 D ' =' =>' KCD8 @"' !! @ ' % ||C # ?;' *<K8?>= =#4 ?;' EB?' B 88 ?E=' ?;' F ;@ ' #B ' < ' E #B?C# # " =A' #B ' ' #B' = ' ! C; =@ ' =' < == ;' !?; 4 #B >' B 88 D ' K; ' K ?' ! @#?' ?!' #B ;' ' !! @ 4 %;C # ' = ' *<K8?>< # 4 = ' = # ; ' K;? > ' #?' 1 ;" ' B 88 D ' K; ' ?!' #B ;' = ! @ ' ?;' (# K = 4 = 4 K; @B ; ' =?# K;?L > ' #?' 1 ;" ' !8 88 D ' KC= B ' D>' = !! ; =#4 ?;' ?#B ;E > 4 ' #B ' ?C=@ 88 B 88 #B ="' ! ## = ' 88 #B ' !?; ' % @" < =' B 88 D ' KC= B ' ' #B ' . ,:%' ? < 88 B 88 #B ="' ! ##' = ' ! ; ;' %B # #B >' = ' 88 ?#B ;' K ; ?= 4 EB #B ;' D? ' ; =" ' ?;' =?#4 EB?' B 88 =?# E ;' #B ' ' #B' = ' CD @; D ' #B ' < ' = ' #B ' !8C; =@ ' B 88 =?# D ' 88?E ' #?' " K' =>' B?;! ' D? ' = ' BC= ; ' < ;" ' K; @ 4 =?;' =>' ?;# ?!' ;< 4 <?; ' #B =' ' E 8" =A' (E?; 4 ;# !> =A' C@B' ' B 88 D ' !?C= ' #?' B ' B?;! ' = ' ;< ' @?=#; ;' #?' #B ' K;? ! ?=4 #B ;' =' #B ;' ?E=4 ?;' =' #B ' " K =A' ?!' ?#B ; 4 #B # D?#B' #B ' E= ;' = ' #B ' 1 K ;' ! 88 =@C;;' #B ' K = 8#>' ?!' = ' #B?C = ' < ;" 4 #B ' ?= ' B 8!' #?' #B ' *=!?; < ;' = ' #B ' ?#B ;' #?' #B ;' L # ' = ' #B ;' # 4 E #B' @?= =# !?; ' CL #B?; W ' = ' *<K?E ;4 #B ' 0?; ' ?!' / ; >' ?C=@ 88 #?' # " ' C@B' !C;#B ;' !! @#C 88 < #B? ' !?;' ! ;<L =A' #B ' K ; ?= ' = ' ! W =A' ?!' #B ;' ?;! ' D? ' #B ' !?; ' 8C 4 ' #B >' B 88 C A ' = @ ! ;' ' 8 " E > ' #B >' <K?E ;' #B ' ?C=@ 88 #?' 88 D !?; ' #B <' 88 ?;' =>' ; #?; ' ?;' ?#B ;' / ; ?= ' EB?<' #B >' B 88 #B ="' ! ## EB #B ;' D? ' ; =" ' ?;' =?#4 = ' #?' KC# #B ' ' #B' = ' ! C; =@ ' #?' #B <4 = ' =' @ ! ' ?!' #B ;' ; !C! 88 #?' K;?@ ' A =!# #B <' D>' !>= =A' ?=!>= =A4 *<K; ?=< =# ?;' = 8B< =#4 ' #B >' B 88 ' @ C! 4 #B ' $>= 4 !' #B >' D ' ; #?; ' #?' D ' #B ' +?CD8 ' ?!' #B ;' ! ' ?;' CKK8>5 = ' !C;#B ;' *!' #B ' ?C=@ 88 B 88 #B ="' ! ## =?# F@ =A' ?= ' > ; ' 8C ' =#4 = ' !?;' ?#B ; 4 =?# ; #?; ' #B ' #B ; ' K ;# ?!' #B ;' & @B #9' D8 ') ?? 4 D>' = ' ##?C; ' #B ' ?#B ;' / = 8# 4 @?=# = ' =' #B ' #B ;#>' AB#B' @#' ?!' #B ' (@?= ' (@!! ?=' ?!' #B ' @C;; =# / ;8 < =#' *#' ' 8 ?' B ; L D>' &= @# ' #B # #B ' ' #B' ?!' 88 A =@ ' = ' !!C; =@ ' ; ' =' =?' @ ! ' #?' D ' <K? ' ?;' # " =' ; 88>4 DC# ?>=#8>' + @8 ; =A' B ; D>4 #B # #B ' EB?' ; !C ' #B ' ?= ' B 88 D ' B?8 =' ' ; !C =A' D?#B ' = ' #B ;' * * # 4 E #B' @ ' !?; ' @?=< = ' #?' #B ;' / ; >' ?C=@ 88 #?' ' #B ' @# KC# #?' C ' = ' A?;?C ' &F @C# ?=4 E #B' 88 + 8 A =@ Z = ' *#' ' B ; D>' + @8 ; ' #B # #B ' !?; ' A = ; 88 K?E ;' A; =# ' #?' #B ' ?C=@ 884 ' #?' = C; ' C=# 88 #B ' = F# (! ?=' ?!' / ;8 < =# 88 = ;8>' = ' 8 #8>' *#' ' B ; D>' / ;? ' %B # C@B' ' B ' 8; >' # " =' = ' CD @; D ' #B ' ' #B4 = ' CD @; D ' #B ' ! C; =@ ' 88 88 =?# D

?D8 A ' D>' ;#C ' B ; ?!' #?' # " ' = ' CD @; D ' #B ' < ' A =' =' #B ' < ' K @ #>

%B ' #B' ?!' 88 A =@

*' ' ' ?' =@ ; 8>' K;?< ' = ' E ;' #B # *' E 88 D '! #B!C88 = ' D ;' #;C ' 88 A =@ ' #?' #B ;' L # ' 1 =A' 2 88 <' = ' 3C =' ;>' (?' B 8K' < ') ?

%B ' ! C; =@

*' ' ' ?' =' #B ' ! =@ ; #>' ?!' <>' B ;# ! ;# @L "=?E8 A ' = ' + @8 ; 4 %B # #B ;' # ' 1 =A' 2 ' <' = ' 3C =' ;>' ; ' #B ' ?=8>' 8 E!C 8 C=L ?CD# ' (? ; A= ' ?!' #B ' 8<' ' E 88 ' C; 4 #B # 4 ?!' ; AB#4 1 =A' = ' 3C =4 ' ' ! @#?4 #B # ' =' #B ' K?! ! ?=' = ' &F ;@ ' ?!' #B ') ? ;=L < =#4 = ' #B ; !?; ' ' ?' =@ ; 8>' = ' ! #B!C88>' K;?< ' = ' =A A 4 #B # *' E 88 E #B' B ;# = ' B = ' 8 ! ' = ' A?? ' < =# =' = ' ! = ' #B ;' !# ' % #8 ' = ') ? ;=< =# A = # #B ' 8 # ' 1 =A' J < ' = ' B ' B ; =# ' = ' 88 ?#B ;' &= L < ' EB?' #B ;' D>' ?K =' ?;' @; # ## <K# 4 B 88 #C;D' ?;' NC # #B ;' 8 # ' =' #B ' K?! ! ?=' = ' &F ;@ ! ' #B ;?!

% &' 0?; ' ?<< ! ?= ; ') ; @ 4 = '#B '& # # ' ?!' / ;8 < =#4 +?' A; =# 2 ;; = ' #?' (;' J < ' [(# E ;# #B ;' # ' ?@ # ' #?' ; ' =' *=L @#< =# ?!' AB' %; ?=' D !?; ' #B ' / ;8 < =# A =!# 8 ' / >= ' / ; ?= ;' =' #B ' %?8D??#B' ?!' & =DC;AB4 !?;' %; !?= D8 ' ?;; K?= =@ 4 = ' ?#B ;' %; ?= D8 ' K; @# ' A = # #B ;' # ' = ' #B ;') ? ;=< =#4 = ' #?' =! !# #B ; =4 8 =# 88 #B ' ! = 88 @ ?=' ?!' #B ' K;?@ !

: ** ' +' < * ' I 7 '

% &' / ;8 < =# ?C;= ' # 88 %C >'= F#4 # % =' ' 8?@"' =' #B ' !?; =??=

%' & + * ') 4

' , , ***4' 4+ 4, ***

/ & (' ' = ' #B ' ?88 ' @ 88

/ % * ' 2 88 <' == # ?!') ;CDD # = ' J?B=' (@?## ?!' 2 88 !?;' #B ' B>; ' ?!' ?FDC;AB4 P' 2 89' 8 <' (# E ;# ?!' <D; <?; ' !?;' #B ' (B>; ' ?!' C# 4 ?D ;# $ ' !?;' #B ' C;AB' ?!' +C=D ;;4 ?D ;# (# E ;# !?;' #B ' C;AB' ?!' ?#B >' = ' J?B=' =L ; ?=' !?;' #B ' C;AB' ?!' +?;=?@B4 88 ?< < !L ?= ; ' 8 @# ' #?' (CKK8>' #B ' @ =@ ' 8 # 8>' L @8 ; 4 B =A' # " =' #B ' #B 4 = ' CD @; D ' #B ' 88 A =@ ' = ' ! C; =@ 4 E ; ' < ## ' @?=!?;<' #?' #B ;' ?; < ! ?=

M2 &' +,'

% &* ' #>' AB' ?< < ! ?= ;' + @8 ; ' %B # B ' B ' ; @ ' C!! @ =# *=!?; < # ?=' ?!' #B ' *=! ;< #>' = ' ?8 ' A ' ?!' #B ' & ;8' ?!' ;8>' = ' #B ; !?; '&F@C 'B ' D =@ '!;?<'#B ' / 8 < C#

d& ;8' ?!' F@C @=

M 6/ *' (* ' CAB' <KD 88?!' 8 ;4 = ' #B ' 0 B ' ?!'
F@C -' 8 @"< == =' &F@C ' CK?=' ;#!@# ' ?!' #B ;'
4 *= K? # ?=4 *=' ?!=7 9@?=@ ;=' #B ;' $>=

5 6 ' '
, 7+* +,' & '
1 * '+,'
& * .

%' !?;' #B ' 0 >

' % &' & # # ' ?!' / ;B < =# ?= ; =A' #B ' K; L
=# =A ; 4 = ' #B # #B ;' # ' < >' #B ="'
!' FK =# #?' ?; ;' #B ' 0 > =A' ?!' <?; ' $?;@ '
!?;' ?D # =A' #B ' ' + =A ; 4 = ' D =A' E #B 88'
<? # = D8 ' ?!' #B ' +C#>' #B >' ? '#?' #B ;' L
'!?;' #B ' A; # = ' < = !?8 ' B8 !8 =A ' #BA>'
= ?>' D>' = ' C= ;' #B ;' B KK>')? ;=< =#4 +? '
!?;' #B < 8 4 = ' =' = < ' = 'D B 8!' ?!' #B ;' L
'A?? ' (C8A @!' ! #B =' #B ' 1 =A ?<' D>' #B '
K; ! =# ' = E' #B ' BC<D8 ' = ' B ;#>' # = ;' ?!'
#B ;' 0 ' = ' $?;#C= ' !?;' #B ' K;?<? =A' ?!'
#B ;' # 6 (; @ 4 = '!C;#B ;' KC; C =@ ' ?!'
#B ;' +C!>4 FK; ! ' =' #B ' @# ?!' / ;B < =# ?= '
#B?C = ' (F BC= ; ' (F#>' #B; 4 &=# #C8 ' = '
BC= D8 '% = 7 '#?' B ' (@; ' #>' ?!' #B ' + =#>'
= '0?> 8#>' ?!' B ' =@ =# 1 =A ?<' ?!' (@?#8 = 4
%B >' ? ' @B ;!C ' >' ?!! ;' #?' #B ;' # ' 'K; 9
! =# 0 >' =!' %E?' #B?C = ' =>= ' BC= ; ' =
(=#>' =>= ' !??# #?' B ' 0 > ' ?!!' #B ' ; 88
(B>; ' = ' C;AB ' ?!' #B ' 1 =A ?<' !! =A' #?'
#B 'K;?K?;# ?= ' = '=C<D ; ' ## ?E=' =' #B '!?;9
' @#4 = ' #?' #B ' = 4 #B ' !?; ' 0 >' < >'
D ' < ' !! @#C 86' %B ;' # ' E #B' @ '
= ' @?= #' ?!' #B ' ' & # # ' ?!' / ;8 < =#
+? ' ; ;' = ' KK?>=# #B ' (B>; ' (# E ;#; '
= ' C;AB ' E #B =' #B ' 1 =A ?<' #?' KC# ?C# = '
B ;' EB =' #B >' B 88 D ' #B ; #?' ; NC ; 4 = '
#?' C@B' !!@ ; ' ' B 88 D ' ?<< ! ?= # ' D>' #B ;'
'!?;' #B # !! @# #B '!?; 'K;?K?;# ?= ' = '
=C<D ; ' EB @B' ; ' B ; D>' KK? =# '#?' D ' 0 >L
' @@?; =A' #?' #B ' =C<D ; ' !?;< ;8>' ?D ; ' ='
#B ' < 8 # 4 = ' ; ' ' !?88?E ' ' %B ' (B>; ' ?!'
?FDC;AB' = ' (" ;"4 ?= ' BC= ; ' =>=#>' AB#4
;E @"' ?= ' BC= ; ' = ' =>=# = ' %B ' B>; ' ?!''
& =DC;AB4 = ' BC= ; ' = ' =>=# =4 =AL
#?=4 = ' BC= ; ' = ' =>=# =4 / D8 ' !?C;#>4
0 =8 8BA?E' ! !#>' %B '%?E= ' ?!' & =DC;AB' 0 #B'
= ' =?=A # 4 = 'BC= ; ' = '=>=# =4 +;C<9'
!; 4 ?= 'BC= ; ' = '=>=# = '%B ' B>; '?!' 2 A9'
#?C= ' !?C;#>' ! '%B ' (# E ;#>' ?!' 1 ;"@C D; AB#
(=#>' ! ' ;' = ' =!; E4 ?= 'BC= ; '=><'
' AB#4 0 = ;"' ?= ' BC= ; '!?;#>' =>= 4 (# ;8 =A'
= ' 8 @"< == =' ?= ' BC= ; 4 $>! ' = ' 1 =;?! '
#E?' BC= ; '#B ;#>' AB# / ;#B' #E?' BC= ; ' = '
#B ;#>' AB#4 ! !?;! ;' ?= ' BC= ; '!?C;#>' =>= 4 1 =9'
@ ; >= ' = ' ; B 88 ' K ;# ?!' D ; = 4 ?= '
BC= ; ' = '=>=# = 4 #B '; !# ?!' D ; = '!8 >; '
= ' = !!' ?= ' BC= ; ' ! !#>' '&8A =4 <'
= ' # = ' > ' ?!' ! ' ?= ' BC= ; ' !?;#>' =>=

%B '& ;8?!' (!?;#B' = '0?; '0? #'#B ;' + ! ?= '
?!' *= ;= ! ' ?= ' BC= ; 4 (C#B ;8 = 4 #B= ! '
= ' #B ' ; !# ?!' *= ;= ! ' ?= ' BC= ; '! !#>' =>= '
;A>8 4 +C<D ;#?=' = ' C# ' ?= 6 BC= ; ' = '
>=# =' ;"= >' = ' p #8 = ' ?= ' BC= ; '%?' D '
> ' = '<? 88 ' =#?' A < =# 4 '#B ;' L
' B 88 #B ="' ! ##4 = '#?' D '#B ; !# ;' K > ' = '
< =# = ' !;?<' #B ' !!D= ' <K? ' ?;' #?' B ' <L
K? 'D>' #B ' / ;B < =# !?;' #B # !! @#4 = '#B #
D>' C@B' C8 ' ?!' & # DB B< =# '#B ;' # '
B 88 KK? =#' 2 B @B' 0 ' = ' K;?K?;# ?= ' #B '
?<< ! ?= ; ' ?!' (CKK8>4 EB @B' =?E' ; 4 ?;' B 88
D ' B ; !# ;' =' #B ' ' (B>; ' = ' (# E ;#; 4
E #B' ?= ' ?;' #E?' A #; # ' !?;' @B' ?> 88
C;AB4 ; 'B ; D>' !C88>' *<K?E ; '#?' < " ' !! @9
#C '' = ' #' 'B ; D>' / ;? > 4 %B # EB ; '#B '
!# ;' = ' % == =# ' B 88 KK? =# ' < ;' ?= ' ?;'
<?; '#?' D 'KC# ?C# =' #B ' '0 4 #B ' 'K 9'
?=' ?;' K ; ?= ' < >' D ' W ' = ' @C; ' D>' #B '
(B ;; !!' ?!' #B ' (B>; 4 ?;' =>' #E?' ?;' <?; ' ?!' #B '
?<< ! ?= ; ' ?!' (CKK8>4 ?;' ?= ' ?;' #E?' ?!' #B 9
A #; # ' ?!' #B ' ; K @# ' C;AB ' !?;' #B ;'
C;AB4 EB = ;' #B ' !! @ ;' EB?' '#?' B '#B '
'K ; ?=' ?;' K ; ?= '@?< '#?' ; NC ; '#B <' E #B9' 4
=' #B ' *B>; 4 0 " '#B ' ' ?<< ! ?= ; ' ?!'
(CKK8>4 E #B' #B ' !?; ' !! @ ;4 ; '#?' @?A=?!@ '
= ' # ;< = ' CK?=' #B ' !C!! @ =@>' ?;' = C!! L
@ =@>' ?!' #B ' ! 4 = ' =' ; A ; '#B ; 'B 'D ='
8# ; # ?= ' < ' D>' #B ' @# ' ?!' / ;8 < =#4 '
#?' #B '&F# =# = 'B?C= '?!' ?< ' (B ; ' =@ '#B '
' @# ?!' / ;8 < =#4 ?= '#B?C = ' (F BC= ; '
(F#>' #B; '%B ;' !# ' E #B' @?= =# !?; '
+? ' C#B?; W ' = ' *<K?E ;' #B ' 0?; ' ?!' / ; >' '
?C=@ 88 #?' C # #B ' K;?K?;# ?= ' ?!' #B ' '
(B>; 4 =?#E #B # = =A' #B ' 8# ; # ?= 4 EB
;' B" 2 >' B ; D>' E ;; =# '#?' A ' C@B' ?#B ;'
; ; ' =' #B ' < ## ;' '#B >' B 88 ! = ' = @ ! ;'
= ' 8 #8>' #B ;' # ' ?' B ; D>' A; @ ?C 8>'
+ @8 ; '#B # !?;' ?= ' > ;' = ' = ' B 8!' !# ;' #B '
# 'B ; ?!4 #B ' 8 # '?!' #B ' ?C=#;>' ?;' =>' K ;#
#B ; ?!4 ' =?# #?' B ' @ 88 ' ?C#4 ?;' < ' C ' ?!4'
&F@ K# =' #B ' @ ! ?!' = ' @#C 88 *= ?=

%' A = # ?;; K?= =A' E #B' $; =@

' ' (& *) &' 0 +' Q 0 + ' %B ' &'
1 =A' = ' 3C = ' # ' ?=! ; =A' #B # #B '
1 =A ?<' D =A' =?E' =' ' (# # '?!' 2 ;;' E #B' #B '
$; =@B' 1 =A' ' =' A; # = ' << = =# =A ;'
!;?<' ?;; K?= =@ ' E #B' K ; ?= ' =' D ' +?< L
= ?= ' +? 'B ; D>' E #B' @ ' = ' @?= =# ?!' #B '
& # # ' ?!' / ;8 < =# (# #C# ' = ' ; =4 %B # '
=?= ' ?!' #B ' (CD @# ' E #B =' #B ' 1 =A ?<4 E #B94
?C# FK; ! ' 8 ' !;?<' #B ;' !# ' ?;' #B ;'
/ ; >' ?C=@!!84 =! !C< ' #?' A?' #?' #B ' 1 =A ?<' ?!'
!!; =@ 4 ?;' =>' ?!' #B ' ?< = ?= ' CD @# #?' #B '
!!; =@B' 1 =A4 !# ;' #B ' ! ; # >' ?!' JC= ' = F# # '
?< ' ?;' D =A' 8; >' =' #B ' ' 1 =A ?;=' '
$; =@ ' ?;' ?C=#; ' !?; 4 K; C< ' #?' # >' ?;

D #B ; =4 !# ;# #B ! ; #U >?! CAC #= F#4 E #B?C# FK; 8 *# !;?<#B ;# !# 4 ?;# #B ;# / ; >? ?C=@ 88 C= ;# #B K =?! K@ !?=4 = !C;#B ;# *# (# #C# = ; = %B #=?= ?! #B (CD @# ?! #B 1B A @E=4 K; !C< E #B?C# C#B?; #>!?; #?# @?;; K?= 4 " K *=# 88 A =@ 4 ?;B ?<< ;@ D>0 ## ; E #B =>K ;!?=; 9 ! =A E #B =#B 1 =A ?<4 ?;+?<B ??= !# ;#B # B ; ?!4 C= ;#B K =?! D =A KC= B D;; K?= ; E #B @8 ; %; #?; Q #B #B @#@?=# =C = # = =!?;@ C; =A #B 2 ;;# = =?8?=A ;4 J ?#B # #D E #B?C# K; C ! @ ?! =>!?;< ;# @# < A = #%# ?= I;%; ?= D8 <; K?= =@ 4?;#B KC= !B< =# ?! C@B B 8; >=@C;; #B K = #B ; ?!

(/ ;8 < =# ^ [?<= # 88 %BC; > = F# #% = ' G =#B !?; =??=

%& + * ') 4

, , 4 4+ 4F ;

/ & (= #B ?88 @ 88

2!1"6 0 - (∞

0 & , + & C;; >?! 8<>; !?;#B (B>; ?! / D8 = %B?< >?! 8B?C! !?;#B (B>; ?! / ;#B4 8 @# #?CKK8>#B @ =@ 8 # 8># @8 ; 4 B =A # " =#B #B 4 = CD @; D #B ' A = = ! C; =@ E ; < ## @?=!?;<#?#B ;# D<< ! ?=

% &/ ;8 < =# ?C;= # '#?<?;;?E # % = 8?@"= =#B $?; =??=

%& + * ') 4

, , *4 4+ 4, ***

/ & (4 = #B ?88 @ 88

%& + * ') 4

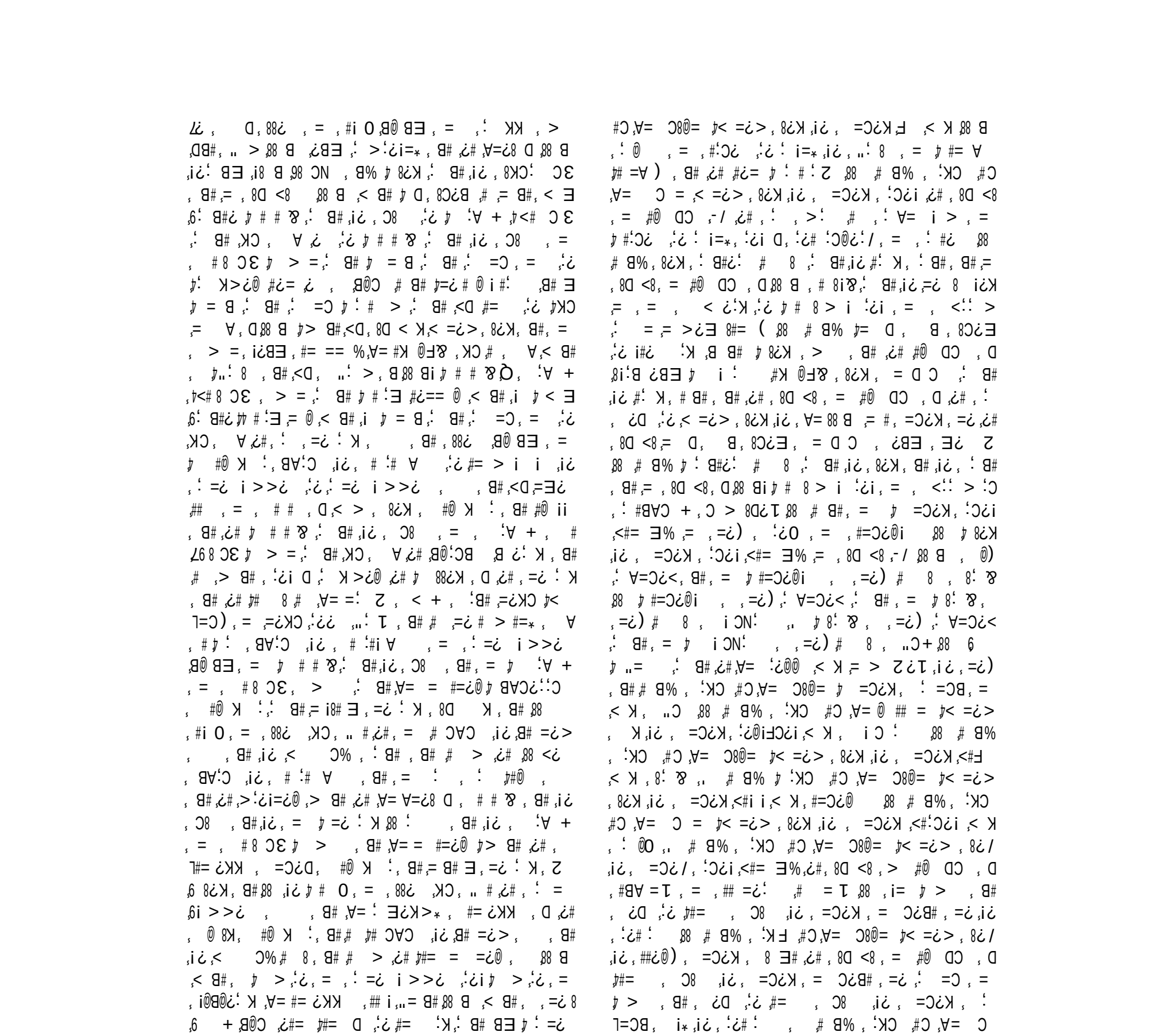
, , *, 4 4+ 4, ***

/ & (= #8 ?88 @ 88

%!?;/ ?8 ?= >

% % &&#B ?!/ ;8 < =## " =A#?#B ;# ?=L ; #?=4 %B ##B ;; ; C #?#B ?C=#;># = ;<># K;?@ =A#B ! ; # >?!$ D;C ;>4 = #B?C = F BC= ; =>= #>?= 4 ; =?# > # K > D>#B $?= KK? =# =#B !?;< ;# (8 ?=?!#B /;8 < =#4 = #B ## #<? # C #

#B ##B < B C 8>= = #;C 8>K > %B ; !?; 4 *=?; ;#?#B / >< =# >%B ##B !?; ;; # C #?#B ?C=#;>< >D K > =#B ! ; #K8 @ 4 = #B =#B ;; ; C #?#B !!^ Z@ 4 =C@B < == ;4 #B # '! @ ; 4 A < =# = %;??K < >D ! ; # D;?CAB# CK#?= NC 88 !??#4 = #B ; !# ;# @?<K8 # = #B # EB # ; < = #B ; ?!< >D K? ?!4 #B ;# L # B 88 #B ="! ## +?! !; 8># = @B ;!C88># ?! ;#B /?8 <?= >!?88?E =AZ = !?;< " =A #B < ! !$ @#C 884 %B ;# 8 # E #B @ = @?= =#?!#B & # # (# #C# = ; =# %B # 88 K ; ?= ?!EB # ? ;# A (F ?;NC 8 #> B 88D CD @# = 8> D8 #?#B K?8 ?!F B 8L 8 =A (@?## K ;B &F@ K# K??;K ; ?= EB?8 CK?= B ; #> = #B B 8 ; =C= ;#B A ?! (F# => ; 4 = =$ < 8 ?! 88 #B? K ; ?= EB?! K?88 ?= K?C= # =(B 88 =A (@?## 4 ?;C= ;#B < %B #D #B (F (B 88 =A (@?# *<K? CK?= 88 #B K ; ?= #B # ; =?# F@ K# 4 ?## ;B =A %; B 88 K > F 8 8! =A !??# <?; 4 < " =A =#B B 88 #E 8 B 88 =A (@?# !?;; >C@B ?## ;4 %B # 88 (;L =# #B # ; @ <?; #B =(F K?C= (@?## ?! > ;8>! = <?= >?;?#B ;E > 4 B 88 K > #B #E =# #B K ;# ?! #B ! =@8C =A #B (F B 88 =A (@?## ?! A = ; 86 K?8 4 EB @B #?D <L K? CK?= 88 K ;!?= #B # ; =?# D? F@ K# %B # 88 % == =# K > =?= < ?!K?88 #?#B 1 =A ?= < ;" !?; @B BC= ; < ;" ?!#B # ; 8C =# !! ; =A#?#B ;; K @# =# =L @8C =A #B !?; (F B 88 =A ?! A = ; '/?884 = KK? =# #B < # ;?! #B A;?C= #?C # #B K;?K?;# ?= ?! #B /?88 <?= > <?=A # B ; 86 % == =# 4 @@?; =A #?#B ;; K @# C# K > D8 D>#B <= <?= >?; @#C 88 !! ;L =A #?B 8C =# $?; EB @B /?8 4 88 K?8 <?= >B ; #?!?; KK? =# #?D K > D>% =L = =# #?#B ;* * # ; 4 B ; D> FK; ! 8> L @B ;A 4 = #B @# ?; @# #B ; = =# @ = %B # %; < = =B D # =A E #B = => C;AB4 EB #B ;?! ?> 8#>4 A 8 #> ?; ;?=>4 E ?! !; #?@"= = < = D? = BC= ; < ;" 4 = ? =?# F# = #?!! BC= ; < ;" D CD @# #?< ;"= (@?## =@8C =A #B !?; F B 88 =A ?! A = ; 86 /?8 4%B # 88%; < =8 =A E #B = => ?! #B C;AB EB? !; (#?@"= = < = F# = #?!! BC= ; < ;" 4 !$ '' D CD @# = 8> D8 #?< ?= K?C= # = B 88 =A4 =L @8C =A #B !?; (F B 88 =A ?! A = ; 88 /?8 4 %B # 88 < ;@B =# ?;(B?K" K ; = %; < = *=B D # =# E #B = => ?! #B C;AB 4 EB?! !; (#?@"= = < = D? *!> BC= ; < ;" = ? =?# F# = #?! #B?C = < ;" B 88 D CD @# = 8> D8 #?#E?K?C= # = B 88 =A?! /?8 <?= > =@8C =A C# CK; %B # 88 < ;@B =# 4 B?K" K ; 4 B K9



(,

B ,

!?= 88 &F @C# ?=4 =A D>#B @# ?! / ;8 < =#4 ?= #B?C = (F BC= ; = AB#># ?= > ; CK?= EB @B #B ((C<<?= E ; 4 D =A ; D !?; #B 8 !# @# ?! / ;8 < =# = #B?CL = (F BC= ; = >=# 4 #B / # # ?= ; 0 = @?C8 =?# D KC# #? ?CK ?; (8 C=8 ! #B 0 A ' ?! #B C @ # ?= ?; KK; W =A A = # #B K # # ?= ;B D = FK>; 4 = EB @B E ; ?=8># 8 #EP? > ; ?; #B ; D>D !?; #B K # L # ?= ; ?= =# = ; 8 =A ?! #B (C<<?= ?! 8 4 = EB @B ; =?# > # FK>; ?#E #BL # = =A ?! EB @B ?= =# E #B #B !?; ?= L # ?= #B # #B / # # ?= ; K ; ?= B?C8 D !; !;?< =>K ; ?= 86 &F @C# ?= ?; #; ! 4 = #B # #B K # # ?= ;E 88 =A8># > 8 #?# #B (8 ?! B 0 = !?; # ! @# ?= ?! B ; #?; 4 EB @B @@?; =A8># E ; ?8 = ?EK !?; #B ; / >L < =#4 > # ?< ?! #B < ; ? < 8 @ ?C # ?4 #B / # # ?= ;4 #B # #B > B # " = ?C# K# ?= = =# = #? #; ! #B K # # ?= ; K ;!?= @?=#; ; #? #B !?; @?= # ?= @?=# = = #B K # L # ?= ; ?= =#4 CK?= EB @B #B ?EK ?! B & # # K;?@ 88 EB @B *= #;C@# D># B K;? C@# ?= ?! #B K # # ?= ; CD!@; D ?=L =#4 = #B C @ # ?=4 EB @B #B) ;?C= ?! #B (C<=8?= ?! (8 ?! #B / # # ?= ; & # # = %B ; !?; C<D8> ; =A #B ; # B AB ?<< ! ?= ; = #B B?=?C; D8 & # # ?! / ;8 < =# #? # " #B K; < ! #? #B ; ?= ; # ?=4 = ! =A #B K # # ?= ; ? E 88 =A8># E #B?C# =># ?<KC8! ?= @?= =# #? #B (8 ?! B & # # 4 E #B = FK; ! ?= # ?= #B # #B K # # ?= ; K ; ?= B?C8 D !; 4 =?; ; #? B ; #?; K >< =# 4 #B A; # !# K ;# ?! EB @B + D# D =A ?=8># C# ?=;># !?; #B (<C 88 +;C<<?= #B K # # ?= ; D;?#B ; = 0 E4 %B / # # ?= ; & # # D =A <?; #B = E?C8 K ># B ?E= + D# 4 %? A; =# #B K # # ?= ; K ;!?= 88 K;?# @# ?= @?=!?;<# ?# #B ?= # ?= ?! B ?=! =#4 #B K # # ?= D ; %B 0?; ?<< ! ?= ;) ; @ = #B & # # ?! / ;8 L < =# B =A CK?= #B =>=# =#B ?! ># *= # =#4 B ; #B K # # ?= %B ># ?; = #B K # L # ?= ; ; #?; #? = =!E ;#B < A =!# !!;> ># B = F# #? @?< D =A #B #E =#> F#B *= # =#4 EB># #B ; #B ; ?! B?C8 =?# D A; =#L 4 E #B ;# ! @ # ?=4 !# #B ># ! 8 %B ># E?C8 ? #B ; = #B ># B?C8 ! = C # = #B ; L # AB ?<< ! ?= ; = & # # ?! / ;L 8 < =#4 B =A CK?= #B ># = # B ; ?! ?=L ; #B K # # ?=4 E #B #B = E ; 4 < #B ; #? !?; + 8" ?= ?! #B K # # ?= ; ; #?; %B >#) ; =# = B ; D>#) ; =# K ;9 !?= ' K;?# @# ?= #? #B K # # ?= ;# C=# ' #B = F# (! ?= ?! / ;8 < =# = B + !@B ;A = B ; D># + !@B ;A ! =A ; # ;< 4 !8 @ ; E #B = C;AB = ?#B ; #? KC## =># 0 ## ; ?! K# ?= ?; @# ?! 2 ; =A = F @C# ?= A = # #B K # # ?= ;4 !?; =># 88 C! ?; + D#4 C; =A #B K @

% = ! ?; ?! A= <KD 88 ; 8 @# ?! = ; E = ; ?= # / ; =# ;

& %# #B ((CKK8 @ # ?= A = = = K; =# ? B) ; @ # #B ; !8> B AB ?<< ?= ; = #B & # # ?! / ;8 < =#4 # #B *= # =@ ?! A= <KD 88 8 @# ?! = ; E = ; ?=4 ?< #>< B !#> K; =# ;4 = =?E K?C! #? / #; @"% 8! ; < ;@B =# = & =DC;AB =L # ?= =A %B # EB ; #B @ = T E = ; ?= #B K # # ?= ; ! ; # C D = B =A ?D# =) !# #? D B #> # ; / ; =# ;4 !?; #B K @ ?! !!DC;#> ?= > ; = #B K # L # ?= ; BC D = B =A @ E #B = ! E> ; #B ; !# ; 8 =A >?C=A B 8 ; = C=! ## !?; #B < = A < =# ?! C@B 2 ?; "# #B %;C # = @ ; ?! # 8 > EB?88># CK?= #B K # # ?= ; = #B # ; =@ #B # # < #B K # # ?= ; B < = A #B 2 ?; "# = =@ #B < #? A; # K ;! @# ?= C# D =A < ;;> #? / #; @"% 8! ;4 *= ==? = %B?C = (F BC= ; AB#># ?= > ; !! ; B *B?;#8># #B ; !# ; ! 88 = =#? A; # L ?; ;4 = #B # #B ; CK?= B ; #?; B ; ;; #L #B &!! @# D 8?=A =A #? #B 2 ?; "4 ! 88L =A C= ; B ?=#; @# ?! < ;; A ?; JC < ; # = #B # =@ #B # #>< 4 #B K # # ?= ; B D = F = = NC # D>/ ;?@ ! 4 2 B ; =D>#B

JC # @ ?! #B 0?; ?! (! ?=4 B B K; 8 4 = B ; BC D = ; #?; E ; !?C= #? B =?! C;#B ; *=# ; #4 #B = #? !! @# #B K # # ?= ; %?@B ; @?=#; @# *= ; K @# #B # B B ; 8! ?! 88 AB# = % #8 B B #? #B K; =# =A B?C 4 = B '[&!! @# #B ; ?! =# ; ?; #? #B / # # ?= ; < ;; A 4 !K; #B C! = D B??! ?! B ; 8! 4 = B ; ! ; # C D = C # = 8 E !C88 ; #?; 4 = !?; #B K >< =# ?! K?;# ?= ?! % = #B?C = < ;" 4 @?=#; @# #? #B K # L # ?= ; @?= C D = 4 C= ; #B ?= # ?= < =# ?= = B ; ?=#; @#4 = #B (CK ;K8C !?; #B C = D B??! ?! B ; B 8 ; =4 8!? #B # B ; C D = D>B ?=#; @# ?! < ;; A B @@ K# #B K?;# ?= @?=#; @# = # ! @# ?= ?! 88 B @?C8 @8 <4 = #B ; D> B <? # <K8> =C=@ B JC < ; # = 8D # #B K # # ?= ;4 C! 88 K?! D8 K; @ C# ?= #? @C; #B K; =# =A ?C 4 ?; => D = ! # #B ; ?!4 !;?< B ; @?= C D = ?; B ; E 88 B ; L #?; 4 @@?; =A #? #B D # @ ?! #B 1 =A ?<4 = #B # #B ; ; #?; E ; !?C= #? D !! @L #C 88> F@8C 4 > # B ; C D = < !?;#C= B @ ;;> 8?=A E #B #4 A; # K; C @ #? #B # KCD8 @"% 2 ?; "4 E 88 #? B 7 = B ; B 8 ; =4 EB @B @?C8 ?=8> D ; < D> B) ; @ = #B ?=?C; D8 & # # ?! / ;8 < =#4 *N ?! ; 4 #B K # # ?= ; D =A @8? #B E #B BC D = @?C8 = #B ; 8 A 88> @NC ; 4 =?; !! @#C 88> ?D8 A B ; 8!4 #? #B E #B EB?< B B?C8 8 = #; = @#4 =?; @?C8 B B &F @C# ?= # B ; *=9

>' ?!' K; 8 8 #4 < >' @?=# =C ' !?;' ?< ' > ' =' JC= ' = F#4 EB ; D>' #B ' 0 A ' @ ==?# ## = ' #B ' (C< < ;' (?=' E #B?C# A; # =@?= = =@ ' +?' #B ; !?; ' E #B' @ ' = ' ?= =# ?!' #B ' & # # ' ?!' / ;8 < =# ?C;= ' #B ' < # =A' ?!' #B ' (!9 ?=4 EB @B' B?C8 ' D ' =' @?C; ' #B ' ! ; # ?!' JC= ' = F#' %?' #B ' ! ; # ?!' ? <D ;' = F#4 ?=# =C =A' 8' @# ?= ' = ' C! ' K = =A'D !?; ' #B ' 0?; ' ?!' (! ?=' #?' #B ' ' ! ; # ?!' ? <D ;4 = ' %B ;' # ' + K = ' =' #B ' < =' # < 4 E #B' #B ' ## =A' ?!' 8' *=! ; ?;' ?C;# 4 ' !' #B ' (! ?=' B ' =?#' D =' ?C;= ' = ' !C;#B ;' + @8 ; 4 %B # #B ' # < ' = ' K @ '#?' ;C=' D #E F#' #B ' ' ! ; # ?!' JC= ' = ' #B ' ! ; # ?!' ? <D ;4 B 8' =?#' D ' ; @"?= ' =' =>' B?;# K; @; K# ?=' ' 0 " E > ' #B # (C<9 <?= ' !?;' #B ' @?= ' +> # < >' D ' A =' # =>' # < ' =' #B ' ' (K @ 4 ' #B >' < AB#' B ' D =' A =' C; =A' #B ' (C< < ;' (! ?=4 !' #' B ' ## = ' = ' ; = ' #B ;' K; =# ' #?' D ' KCD8 B ' # #B ' < ;@ # ;?@ ' ?!' & =DC;AB4 = ' #?' D ' K; =# 4 #B # #B ' 0 A ' < >' B ' =?# @ ' #B ; ?!

%' @?=@ ;= =A' # # ?= ' #?' #B ' ! ;!# = ! @?= ' +> #

' % &* ' J& (%*& (' E #B' @ ' = ' @?= =# ?!' #B ' & # # ' ?!' / ;8 < =#4 !!?;' #B ' A; # ;' + L K #@B' = ' ! @ 8 # # =A' ?!' K;?@ ! ' +? ' B ; D>' @ = ' #B # 8 C! ' =' #B ' @# ?!' / ;8 < =#4 = ' #B?C = ' (F' BC= ; ' =#>' #E?4 &=# #C8 ' @# + @B ;A =A' (@?= ' (C< <?= 4 EB @B' ; NC ; ' #B ' @?= ' # # ?=' #?' D ' A =' !# ;' #B ' &8 K =A' ?!' #B ' ! ; # +> # ?!' ?<K ; =@ ' = ' + @8 ; ' %B # =' 8' # < ' @?< =A' *# B 8' D ' 8 E!C8' #?' A ' # # ?=' !?;' #B ' ! ; # = ' @?= ' +> # ' ?!' ?<K ; =@ ' # ?= ' = ' #B ' < ' # < ' / ;? > =A' %B # #B ' < ' D ' ?= ' D>' ' < =A ;' # ;< 4 ' E ' #B ' C! ' ?!' (C< <?= ' !?;' #B ' @?= ' +> #4 = ' !C;#B ;' *# ' B ; D>' FK; ! 8>' K;? > ' %B # 8' ?K ' ?!' (C< <?= 4 B ;A 4 *=B D # ?= 4 ;; #< =# ' ?;' ?#B ;' 0 ## ; ' EB # ? ;' A =' #?' #B ' / ;#>' B 8' D ;' # 8 =A#B' = ' =?#' =' ! AC; 4 #B ' >' = ' # ' ?!' #B ' 8 ;>' #B ; ?!' ' 8 ?' #B ' = < ' = ' A= # ?= ' ?!' #B ' 2 #= 8 4 =' C@B' ?;#4 ' #B ' &F @C# ?=' = ' *= ?; # ?=' ' = ' ?#B' D ;' #B ' < 4 ;# !> =A' #B ' =A ;' EB?' B 8' ?< ## #?' =! ;# #B ' ' >' = ' # ' = ' E #= ! ' =' B ' ?K>' #B # B ' B 8' =@C;; ' L K; # ?=' = ' # = 8' ?!' B ' !! @

%' @?=@ ;= =A' #B ' K; ! ; =@ ' ?!' 8' AB#

' ' (& *) &' 0 +' = ' 0 + ' %B ' 1 =A' = ' 3C = ' # ' ?= ; =A' %B # #B ' < =>' A?? 4 @# ' KK? =# =A' A # ; ' ?!' (= 4 ;! ?= 4 ?;= =A 4 *=B D # ?= 4 *=# ; @# ?= 4 88?E =@ ' ?!' KK; W =A ' ?;' C @ # ?= 4 #B # /C;@B ; ' = ' ; #?; ' < AB# "=?E' E #B' EB?<' #B >' < AB# ! 8>' @?=#; @# B ' D =' <C@B' !;C L #; # ' D>' #B ' 1 K ; ' ?!' #B ' A # ; ' =?# = ;#L =A' #B ' < ' =' #B ' A # ; ' #' #B ' # < 4 = ' =' #B ' ?; ;' #B >' E ; ' K; ! =# ' #?' #B <4 EB ; D>' =?= ' @?C8 ' "=?E' D>' *= K @# ?=' ?!' #B ' A # ; 44 EB # 2 ; # ' KK? =# ' #?' D ' ; A !#; # ' E ; ' =' #B ' B = ' ?!' #B ' 1 K ; ' ?!' #B ' A # ; 4 = ' #B ; D>' @?C8 ' =?# @C; 8>' D ;A =' $?;' < ' EB ; ?!' %B ;' # ' E #B' @ ' = ' @?= =# ?!' #B ' & # # ' ?!' / ;8 < =# +? ' (# #C# ' = ' ;L =' %B # 8' #B ' 1 K ; ' ?!' #B ' ' A # ; 49 !# '' " K' =C# ' ??" ' ?!' 8' 2 ; # ' K; ! =# ' #?' #B <' #?' D ' ; A !#; # ' =' #B ;' ; 86 A !# ; ' &FK; ! =A' #B ' >' = ' B?C; ' EB =4 = ' #B ' = < ' = ' + A= # ?= ' ?!' #B ' K ; ?= ' D>' EB?<' #B ' ' 2 ; # ' B 8' D ' K; =# 4 = ' #B # #B ' ' < L =C# ' D ' < < # 8>' A= ' D>' #B ' K; =# ;' ?!' #B ' 2 ; # = ' 8 ?' D>' #B ' 1 K ;' = ' K # =# # ' '' #B ' 0 A ' EB?' B 8' ; ' *= K @# ?=' ?!' #' A; # ' = ' #B # #B ' 2 ; # ' B 8' D ' ; A !#; # ' FL @#8>4 @?=!?;<' #?' #B ' ; ;' ?!' #B ' ' =C# ' ??"4 8' C= ;' #B ' K =' ?!' + K; # ?=' ?!' #B ' 1 K ;' ?!' #B ' A # ;4 = ' !C;#B ;' %B ;' 9' ' # ' E #B' @?= =# !?; ' + @8 ; ' #B ' 9 1 K ; ' =?# ?D ; =A' #B ' K; < ! '8> D8 ' #?' #B ' < A ' ?!' #B ' / ;# ' K; C A 4 D>' #B ' =?# C ' ?D ; =A' ?!' #B ' K; ! =# @#

%' !?;' (C< < ;' A #; # ?= ' = ' + !9 @B ;A =A' %; = ! ;; =A ' @#

' ' (& *) &' 0 +' = ' 0 + ' %B ' <' R,$/' = ' 3C = ' # 4 E #B' @ ' = ' ?= =# ?!' #B ' & # # ' ?!' / ;8 < =# (# #C# ' = ' + @8 ; 4 %B # 8' #B ' 2 ; # ' ; A #; D8 ' < >' D ' ; A 9 #; # ' !# ;' #B ' #B' ?!' #B ' ; #?;' #' #B ' *= # =@ ' ?!' B ' ;' &F @C#?;' ?;' ! A= >4 ' E 8' ' ?!' D !?; 4 = ' #B # CK?=' K;? C@# ?=' ?!' ' (; @ ' ?;' #?C; ' =' #B ' @ ' ?!' ?= ' ?;' ?#B ;' 2 ; # ' B ; 9 # D8 4 ?;' ?!' ' ?=! ;< ' % # < =#4 @?=# = =A

#B ' B>; '?i' ii?;i ;' B =A' ##' " =';#B '? #B ' = '
CDi@; D '#B ' ## A =@ ' = ' i C; =@ 'E ; ' L
< ## 4@?=i?;<'#?'#B ;' ?<< JQ@<

+& &&%' ='i ?;'?i'2 # 7' B 8>'?i
+ ;>'#?' A = # ⫴ B ;8 '$ = 'ri' 0?= ?=
) =#8 <

& %' #B ' K # # ?=' A =' =' = 'K; =# '#?' ('
#B ;' # AB' ?<< i ?= ;' = '#B; '
& # # '?i'/ ;8 < =#' >' 2 8# ;' B 8>'?i'+ ;>'4
E #B' @?= =# ?i' ;A ; # @?8 ?=' B ' <?#B ;'
= ' ?8 ' C; #; F4 = ' B 'i?;'B ; 8i' = 'B ;'?#B ;'
# =' B 8 ; ='D i '#B ' 2 8# ;'B ;8 '$ = 'ri' 0?= ?=') =#8 L
A = # # ;' B ;8 '$ = 'ri' 0?= ?=') =#8 L
< =' (B E =A' %B # EB ; '#B ' #;?=A' = ' i # 88'
;i ?=4 #B # #B ' K # # ?= ; ' C=B KK>' i #B ;' = '
BC D = ' '@ Ci 8 i 8>'# " 'CK' = '@?=@ ' A = #
#B <' = ' B ' EB?8 '$ < 8>4 = ' 8i?' A = # B '
ii #B ;' < <?;>'E '#??' E 88 "=?E=' = '#B # =' ii @#4 B ' = ?C; '=?#B =A' <?; '#B =' #?' 88
B ' & # # # ' # =>' ; 4 K;?> =A' #B # B '< AB#
<?= > 'i?;' B ' ?E=' K = =A4 '@ =' B ' E #=' i '
D>' B ' < =>' %; # ' = ⫴ ;A = ' = '?#B ;'
i??8 B' = 'C= ' ii ;' B ' < 'i' B ' & # # '
#?' ; 88 K ; ?=' i ;';8 i ' #B =' B 8i' K; @ ' = '
?#B' 0 " E > ' Cii @ =#8>' KK ;' D>' #B; ' + 9'
K?i # ?=' 88 CD @; D ' E #B' B ' B = 4 = 'i?C='
C= 8 ; ' <?=A # B ' / K ; ' i# ;'B ' #B' 7

J ' &' **4' 4+ 4, ***

/ & (' ' = '#B ' ?88 '@ 88

M%& '2 &' % &' 0?;' ; ;?i 4 =' K8 @ ' ?i' B ' i #B ;' 9
= Q@;7 @ '#??"' #B ' #B' = ' CD @; D '#B ' 88 A 9
(8 =@ ' = ' i C; =@

% &' O ; '?i' 8 ;'>?C=A :4 &8 @# ' ?<< i9
?= ;' i?;' #B ' (B ; '?i' ;= 4 *=' K8 @ ' ?i' (;'
CAB' <KD 88 ?i' 8 ;' B ' i #B ;' = ' #B '
0 ; '?i' ;" =D?A'i?;'#B ' B>;'?i' <i'*='K8 @ '
?i' (;' / #;'@"' A 8 >'?i' ?>= 4 B =A'# " =' #B '
? #B' = ' CD @; D '#B ' 88 A =@ ' = ' i C; =@ 4
E ;' < ## '@?=i?;<'#?'#B ;' ?<< i ?=

% &' / ;8 < =#' ?C;= '# 88 * *?= >'= F#
# # =' ' 8?@"' ='#B 'i?; =??=

%' &+* ') 4

J ' &' 4 4+ 4, ***

/ & (' ' = '#B ' ?88 '@ 88

M2 &'+;' (*' 8 F = ;' =A ?i'#B # *8"4 &8 @# '#?
0' - ' CKK8>'#B ' @ =@>'8 # 8>' @8 ; 'i?;'#B ' (B>;'
(?i'/ ;#B4 %B '0 ; '?i'0?A ' 8 @# 'i?;'#B ' B ;'
/ ;8 < =# i?;' AB' %; ?=' A = # #B ' +C " '
?i') ?; ?=4 = '#B '& ;8 '?i' (i?;'#B
3+*.+ 'Q'
& '1 *'+'
,+* &0

% &' / ;8 < =# ?C;= '# 88' $; >'= F#
0 # # =' ' 8?@"' ='#B 'ii?; =??=

#B ' ?= '?;'?#B ;' 2 ; #4' *=' @ i '#B >'D ' <? 9
D8 4 ?;'?i' = ' K @ 88' i A= # ?=4 #B?' =?# *=# L
< # 4 *=' #B ' @ i ' ?i' #B ;' EB @B' A i8; # ?=4
B 88 B '#B ' < ' ii @#4D?#B' '#?'K;?D # ?=4 = '
iC< < ;'&F @C# ?=4 'i'#B ' ; #?;'E ; 'i# 88 ?='
8 i ' = ' i ;'#B ;' *#' ' (B #C# 4 %B # i' # B 88
B KK ='#B 'KC; C ;'#?' @ ' # =>'# < ' C; ='A'
#B ' K = =@ ' ?i' =>' K;?@ i ' ; ' # B ' =L
=@ 4 #B ; ' B 88D '=? '= 'i?;'B ; i# ;'i?;'B '
;' &F @C#?;'?;' i A= >' #?' ; i ' = '?D# = '
', #; = i ;; ='A' @# 'DC# #B ' ' ;4 &F @C#?;'
?;' i A= >' 'B ; D>' 88?E 4 CK?='K;? C@# ?='?i'
B ' (; @ '?;' *8 #?C;'4 ?=i < ' % # < =# ?;'
(K @ 88 i A= # ?=4 #B?'=?# =# < # 4 #?' =8 i#
#B 'K; =@ K 88 Ci '8 @"8 " ' =' 88; K @# 4 'B'
/C;iC ;4 # EB?' '*= # =@ ' #B ' K;?@ i# E ';
< AB# ?4 ,0 B ' E ; ' # 88 ?='0 i 'DC# K; C @ '
#?' %; = i 8# =A ' K 8 4 @?=i?;<' #?' #B ' i?;'< ';
K; @# NC ' ' @@?;

#B ' ?= '?;'?#B ;' 2 ; #4' *=' @ i '#B >'D ' <? 9
D8 4 ?;'?i' = ' K @ 88' i A= # ?=4 #B?' =?# *=# L
< # 4 *=' #B ' @ i ' ?i' #B ;' EB @B' A i8; # ?=4
B 88 B '#B ' < ' ii @#4D?#B' '#?'K;?D # ?=4 = '
iC< < ;'&F @C# ?=4 'i'#B ' ; #?;'E ; 'i# 88 ?='
8 i ' = ' i ;'#B ;' *#' ' (B #C# 4 %B # i' # B 88
B KK ='#B 'KC; C ;'#?' @ ' # =>'# < ' C; ='A'
#B ' K = =@ ' ?i' =>' K;?@ i ' ; ' # B ' =L
=@ 4 #B ; ' B 88D '=? '= 'i?;'B ; i# ;'i?;'B '
;' &F @C#?;' ?;' i A= >' #?' ; i ' = '?D# = '
', #; = i ;; ='A' @# 'DC# #B ' ' ;4 &F @C#?;'
?;' i A= >' 'B ; D>' 88?E 4 CK?='K;? C@# ?='?i'
B ' (; @ '?;' *8 #?C;'4 ?=i < ' % # < =# ?;'
(K @ 88 i A= # ?=4 #B?'=?# =# < # 4 #?' =8 i#
#B 'K; =@ K 88 Ci '8 @"8 " ' =' 88; K @# 4 'B'
/C;iC ;4 # EB?' '*= # =@ ' #B ' K;?@ i# E ';
< AB# ?4 ,0 B ' E ; ' # 88 ?='0 i 'DC# K; C @ '
#?' %; = i 8# =A ' K 8 4 @?=i?;<' #?' #B ' i?;'< ';
K; @# NC ' ' @@?;

>‹

C= ? ʻ#B ʻ & # # ʻ #?ʻ #B ʻ K # # ?= . ʻ K; C @ 4ʻ = ʻ
#B . !?; ʻ . =Aʻ #B # #B ʻ B?=?C; D8 ʻ & # # ʻ ?!ʻ
$;8 = =# E?C8 ʻ A ʻ 2 :: =# #?ʻ # ʻ #B ʻ
B ;8 ʻ !! = ʻ # #B ʻ < ·@ # ·?@ ʻ ?!ʻ & =DC;AB4
K ,ʻ = ʻ B? ,ʻ?!ʻ O #B ʻ #?ʻ @?<K ,ʻ?=ʻ (F#>ʻ >
E ;= =Aʻ #?ʻ K;? C@ ʻ #B ʻ !?· ʻ ?= ʻ = ʻ ! A= 9ʻ
?=4ʻ = ʻ D =Aʻ K;? C@ ʻ #?ʻ B ,ʻ = ʻ ʻ #B ʻ <
C@ ʻ = ʻ 8!?ʻ *<K;? =4ʻ 2 B @Bʻ K # # ?=ʻ !?;9ʻ
ʻ B =Aʻ D =ʻ & < ## ʻ D>ʻ #B ʻ B?=?C;L
D8 ʻ & # # ʻ ?!ʻ / ;8 < =#ʻ #?ʻ ʻ ?<= ## ʻ ?!ʻ #B ,ʻ
?E=ʻ =C<D ;ʻ ' K?=ʻ #B ,ʻ K?;ʻ# #B ʻ / # # ?= . ʻ
?D# = ʻ = ʻ @ʻ# ?!ʻ #B ʻ + # ʻ #B ʻ =# =#Bʻ >
?!ʻ JC8>4ʻ ?= ʻ #B?C = ʻ (Fʻ BC= . ʻ = ʻ =>=# ʻ
> . !?;ʻ#B # !! @ʻ# ʻ = ʻ ?· =A8>ʻB ʻ @ C ʻ
ʻ #B ʻ !?; ʻ B ;8 ʻ !! = 4ʻ E #Bʻ 88ʻ #B ʻ 2 #9ʻ
= 8 ʻ =ʻ #B ʻ #< ʻ = ʻ ! A= # ?=4ʻ CK?=ʻ (F#>ʻ
> ʻ %?ʻ ?<K ,ʻD !?; ʻ#B ʻ B?=?; D8 ʻ / ;8 < =#ʻ
#?ʻ #B ʻ !! @ʻ# D? ʻ < =# ?= ʻ = ʻ 8 =Aʻ #B # #B ʻ
/ # # ?= . ʻ ʻ D; =Aʻ #B ʻ < ## ,ʻ D !?; ʻ #B ʻ / ·9ʻ
< =# =ʻ < == ,ʻ !?·; ʻ ?=ʻ KC;K? ʻ #?ʻ K; =#
=> ʻ B ;A ʻ @# ?=ʻ ?;ʻ + 8 A =@ ʻ #B # < AB# B ʻ
D =ʻ C ʻ A =!# #B ʻ / # # ?= . ʻ CK?=ʻ #B ʻ !?;
?= ʻ = ʻ ! A= # ?=ʻ D !?;ʻ => ʻ ?#B .ʻ ?C;#4 = ʻ
#?ʻ . ; ʻ #B ʻ ?A= # ?=ʻ ?!ʻ #B ʻ < ## ,ʻ #?ʻ #B ʻ
& # # ʻ ?!ʻ / ;8 < =# ʻ ?=8> ʻ K;?K ,ʻ JC A 4ʻ !?;ʻ
#;> =Aʻ !@C! =Aʻ = ʻ < " =Aʻ ?> ʻ ?ʻ #; =Aʻ ʻ
< @B = # ?=ʻ#?ʻ #B ʻ K # # ?= . ʻ K; C @ ʻ = ʻ #B #
=?E ʻ #B ʻ B?=?C; D8 ʻ ?C;# D =Aʻ A =ʻ < ## ʻ *#ʻ
<K?;# ʻ #B ʻ K # # ?= . ʻ =?ʻ 8 ! ʻ #B =ʻ #B ,ʻ EB?8 ʻ
& # # ʻ = ʻ $?;#C= ʻ #?ʻ B ʻ #B ʻ !?; ʻ ?= ʻ = ʻ
! A= # ?=ʻ C@ ʻ = ʻ 8 ?ʻ *<K;? =ʻ < =L
= ,ʻ !?; ʻ = ʻ %B . !?;ʻ C<D8>ʻ . =Aʻ #B ʻ
ʻ O?; ʻ B ABʻ ?<< ! ?= ,ʻ ʻ) ; @ ʻ = ʻ #B ʻ
?=? C; D8 ʻ & # # ʻ ?!ʻ / ;8 < =# #?ʻ @ C! ʻ 88
#B ʻ !?; ʻ B ;8 ʻ !! = ʻ #?ʻ K;? C@ ʻ #B ʻ !?;
?= ʻ = ʻ ! A= # ?=4 = ʻ < " ʻ = E , ʻ #?ʻ #B ʻ
!?; ʻ ?= ʻ ?! C@# ?=4 @?=# = ʻ =ʻ #B .ʻ
ʻ !?;< ,ʻ ?<K8 =# = ʻ #?ʻ ʻ #B ʻ !?; ʻ ?= ʻ
. C@ ʻ = ʻ 8!?ʻ *<K;? =ʻ ʻ = ʻ =ʻ @
?!ʻ B ʻ ! 8A ʻ #?ʻ @?<K :4 #?ʻ < ## :# ! @ # ?=
A = # #B ʻ !?; ʻ ?= ʻ = ʻ ! A= # ?=ʻ = ʻ #?ʻ
@8 · ʻ #B ʻ < =ʻ #?ʻ D ʻ ! 8 ʻ = ʻ ! =A 4ʻ 8 ?
?> ʻ = ʻ =C8# !?;ʻ #B ʻ · ?= ʻ < =# ?= ʻ =ʻ #B ʻ <?= #B
!?;< ,ʻ ?<K8 =#4 = ʻ #B # ʻ B 8#= .ʻ < " ʻ
! #Bʻ A =!# #B ʻ K # # ?= . ʻ =ʻ JC A < =# ?·;ʻ?C#9ʻ
E #Bʻ #B ʻ < 4 =ʻ 8# # < ʻ @?< =A4 ʻ #B ʻ
/ # # ?=ʻ 8 ?ʻ D . ʻ P 2 B @Bʻ D =Aʻ . ʻ *=ʻ K; ! =@ ʻ
?!ʻ #B ʻ ʻ O?; ʻ ABʻ ?<< ! ?= ,ʻ = ʻ & # # ʻ
%B >ʻ D>ʻ #B .ʻ + 8 . =@ ʻ #B ; ?=ʻ # ʻ #B ʻ
!?C;#Bʻ ?!ʻ >ʻ 8 # + @8 . ʻ #B >ʻ E?C8 ʻ # " ʻ #B ʻ
K # # ?=ʻ #?ʻ #B .ʻ @?= . # ?=ʻ CK?=ʻ #B ʻ %E 8 #Bʻ
>ʻ ?!ʻ >ʻ 8 #ʻ = ʻ #B ʻ !?·; @# ?=ʻ B =Aʻ
D =ʻ #B ʻ >ʻ @ 88 ʻ =ʻ / ·;8 < =#4 = ʻ #B .ʻ g
!# ʻ B ABʻ ?<< ! ?= ,ʻ = ʻ & # # ʻ ?!ʻ / ·;8 L
< =# =Aʻ @?= ·ʻ #B ʻ ʻ K # # ?=4 = ʻ =ʻ
; A ·;ʻ #B ʻ ʻ ‖ B ;8 ʻ !! = ʻ #B ʻ K ·#>ʻ # 4
D =Aʻ @ 88 ʻ =ʻ @ # ʻ KCD8 @"8>ʻ D>ʻ = ʻ < @ .ʻ #
#B ʻ :;4 =ʻ #B ʻ A; # ??;ʻ ?!ʻ #B ʻ / ·;8 < =#
?C ʻ =?# ?<K ·ʻ %B · !?; ʻ #B ʻ O?·;
ABʻ ?<< ! ?= ,ʻ B ʻ = ʻ 31ʻ +24ʻ 31+–

' ' '*=2 ' ' %

#B >' ' #' #B; ' ; 88' # < 'K8C= ;' = ' KC89'
A '#B ' < 'K # # ?= ;' B 'B?C ' = '8 = 4' = ' '
?' K CK ; # 'B '% == =# 4'#B #' !?;'#B ' ; 88'
> ; ' D>K #' #B ' ' K # # ?= ;' B #B' ; @ '=?'
1 =#4' = 'B 'B =A' < ' KK8 @ # ?=' ='#B '> ;'
= '#B?C = ' (F' BC= ; ' = ' =>=# ' #?' #B '
& # # ' ?!' / ;8 < =#4' ' ?D# =' = ' @#' = '
?<< ! ?=4' !?;' 8 NC # =A' #B ' ' K # # ?= ; '
+ < A 4' EB @B' E ; ' @@?; =A8>' 8 NC # ' = '
B =A' K # # ?= ' B ' @; ' #>4' %B #' B '
< AB#' # " 9#B ' ' K # # ?= ; ' 8?! '#?' B ' ?= L
; # ?=4' ' # ' E ' A; @ ?C 8>' K8 '#?'
A '#B ' ' K # # ?= ;' ' 0 ## ;' #?' #B '0?; '?!'
%B ! C;>4' ; =A'#B <'#?' KK? =#'#B ' 'K # L
?= ;'$ @#?;' = ' ?88 @#?;'!?;'CK8 !# =A'#B ' =#'
= ' C 8# ' ?!' #B ' &!# # ' ?!' +C<! ;<8 =A4'
E #B' K?E ;' #?' KK8>' #B ' < '!?;'#B ' 'K # L
?= ;'B '?E='C 4' >' = 'EB 8 'B 'E ; '; !?C= '
?!'B '0?! ' = '+ < A ' = '#B ' '0?; '
B =A' ; 'B ' # '0 ## ;4' #?A #B ;'
E #B' ' K # # ?='A =' ='#B ; E #B' = ' 8 ?'
B =A' ?= ; '#B ' K?;'#'?!'#B ' ?<< ! ?=9'
; '8 NC # =A'#B ' 'K # # ?= ; '+ ## A '%B >'
D>' #B ;' *=# ;8?NC #?;' + # ' #B ' !?C;# =#B' ?!'
;@B' 8 #' D>K #' !?C= ' %B #' 8D #' #B ; ' D '
' ?K?;#4' > #' #B #' #B ' < ='= 7 ;' B =A'D ='
K; =# ' =' < =#' %B #'#! ; Q 'C=#!!8'#B '
' K?;#'5D ' KK;? =' =' / < '#B >'@?C8 '
=?#' A; =#' #B ' ; '?!'#B ' 'K # # ?=' = ' =A'
#B ' K # # ?= ;' < >' D ' =# ; 8>' !;C #; # '?!' 88'&FL
K @# # ?='B 'B #B'?!'#B ' K ; # ?='?!'#B ';C = =A'
0? 'B 'B #B' C # = 4' C=8 ! '#B ' ' K?;#'
D ' ^?= ; ' = ' KK;? =' %B ; !?; ' ; =A'
%B #' #' E?C8 'K8 ! 'B ') ; @ 4' = '#B ' & # # '
?!'$;8 <?=#' #?' # " '#?'#B ;' == # ?=' = '
#?' 88?E'#B ' ' K?;#'EB @B' E '!?C= 'CK?='
#B ' '+ K?! # ?= '?!'#B 'K ;# '8 '#?'D '; '
='#B ;' K; =@ ' = ' #?' KK;? '#B ; ?!' 2 B @B'
K # # ?='D =A' ?= ; 'D>'B ' # 'B AB'
?<< 8 ?= ;' = '&!# # '?!' / ;8 <= =#'%B >' L
< ## '#?'#B ' ?<< ## '!?;' ?=#; ;# '&8 @9'
#?' ?#< ;'#B ' 'K # # ?=' = 'E B C=#?'
#'; 8 # 4' '#?'; K?;#'#B ;'?K = @<'#B ; = =#'#?'
#B ' / ; < = ' ?=!?;<' #?'#B 'EB @B' 2 ;; =#4'
#B ' < ' ?<= ## ' B =A' CK?='#B ' %E =#>'
!?C;#B' >'?!' >'8 #'D>K #4' @?= ; '#B ' + 9'
K?! # ?= '?!'#B '% == =#'?!'#B ' ' K# ='2 89'
' <' C;= #4' #?A #B ;'E #"'#B '+ K?! ?='?!'#B '
' K# ='2 !! == ' ;= #'B < !'# " ='D !?; '
?<< ='?!'#B '(CKK8>' = ' B ;; !'+ KC# '
?!'#B '(B>; '?!'1 =@ ; = 4' KK? =# '8>'#B '!?;9'
' @#' = ' ?# < 8 ?='?!'#B ' C;; =#'/ ;8 L
< =#'#?' # " ' ?A= # ?=' = =#'#B '+ < A ' ?= '
D>' #B ' D 88 ' CK?='#B ' ' K# ='2 88 <'
C;= #' = 'B '% == =#'%B >'$ = 'D>'#B '+ K?9'
8 # ?= '?!'#B '% = =#'#B < 8 4' #B #' # ;'+ L
< A ' ' <?C=#'#?' (='#B?C E ' >= 'BC=L
; ' = '#B ;#>'^<'K?C= '(?##'<?= >4'@?=! %<
#?' 'K ;# @C8 ;' 8 #' ; E='!?;#B'?!'#B '; K @# '
+ K?! # ?= '?!'#B '% == =#' ='K;?@ ! 4' = '#B #'D>

#B ' ' K# ='2 88 <' C;= #' B ' K?! # ?=4'
B '?E='8?! ' = ' < A ' ?#B' F@ '#B '8?! ' ?!'
?= '#B?C = 'K?C= ' (# ;8 =A4' D>'#B '8?# '?!'#B '
K ;# @C8 ;'@?=# = ' ='B ' ' K?! # ?=' '#B '
K?;#' !?; '?!'#B ' ' ?<< ## 'D ;' = '
#B ' >'#B ;' B8 # ' ' AB' ?<< ! ?= ;'
= '#B '& # # '?!' / ;8 < =#' B =A' B ; ' = '
@?= ; '#B ' K?;#' !?; '?!'#B ' ' ?<L
< ## ' = =#'#B 'K;?D # ?='?!'#B ' < A ' = '8?! '
C # = 'D>' J ' ' K# ='2 88 <' C;= #' = '
B '% < =# 4' D>'#B '*=@C;! ?='?!'#B ' D 88 'CK?='
#B < '*='#B '> ; ' = '#B?C = '(F' BC= ; ' = '
AB#>' =>= '%B >' ? '<? !>' = '8 NC # '#B '
' + < A ' C # = 4'#?'#B '(C<'?!' = '%B?CL
= 'K?C= '(# ;8 =A' <?= >

+& &&%' =' ! ?C; ' ?!' (;' 2 88 <'
(B ;K'?!'(@?# @; A' A = #' 8 F = ;'& ;8'
?!' C< >'Q' / #; @"' B0?!'(#; #B<?;

& %'#B '(CKK8 @ # ?='A =' =' = 'K; ! =# ' %
#?' B ') ; @ '%B ;' !8 ' AB' ?<< ! ?= ;'
= '#B '& # # '?!' / ;8 < =#' D>' (;' 2 88 <'
(B ' ?!' (@?# @; A4' E #B' @?=@C;! ' ?!' =;>'
0?; ' ; ; ' A = #' 8 F = ;'& ;8'?!' C;; >'
= '/ #< "'& ;"'?!'(#; #D<< ' =# ?; =A'%B #'
91-+-'CK?=' 'K # # ?=' = ' K; ! =# # ?=' < '
D>'#B '0?; ' ; ;?! '#?'#B 'K; ! =#'/ ;8 < =#'

?E' ='#B '8 # '# < 'B 'E '! >= ' ='#B '!C<'?!'
= '#B?C = 'K?C= ' (# ;8 =A' = ' 8!?' ='#B ' C<'
?!' ?= '#B?C = '#B; 'BC= ; ' = '! !#>'K?C= '
(?## 4' = '8 " E >' ='#B 'B 8!'?!' '> ; ' 8C '
=#4' = 'D =A' 8?=A' # = 'K; !?= ;' !?;' K >L
< =#'#B ? 'E ' #'8 =A#B' < #; = '#?' <? '
#B ' @ '& ;8'?!' ;4' = '(' B ;8 ' ; !8 = '
?!' 8 '#?'A '#B ;' ?= '?!'D?;;?E ' $ %'#?'
#B ' @ '(;' 2 88 <' (B K4'#B =' B' 1 K ;4
'A =A'#?'#B <' #'#B ' < '# < 'B ' ?= '?!'
8 !4' = '#B #'#B?' #'K8 '#B '1 =A'#?' KK? =#'
D>' '0 ## ;4'%B #'#B '0?; ' ; ;?! ' B?C8 'D ' 9'
@B ;A '?!'#B '#E?'8 8 ;'!!>= 4'> #'#B '@ < # ?='
#B ; ;!'E ; 4' #B #'#B ' ' ! = '?!' = '#B?C = '
K?C= '(# ;8 =A4' B?C8 'D '! ; #'K > '#?'#B '& ;8 '
?!' C;; >' = '(#; #B<?; 4'#?'EB?<'#B ' < 'B '
D ='A !# '%B '& # # '?!' K ;8 < =#'D>'#B ;'
@#'?!'#B ' #'#B '#E =#>' @?= ' >'?!'JC8>' 5
= '#B?C ' F' BC= ; ' = '=>=# '> ; ' '
F' JC # # ' @ = ' = ' C@ '#B ' =# =@ '
< '! %'#B ' '! = ' # A =A'#B ' < '
!?; ;' = '! ;#B ;' JJ ; '#B '!?; ' ?= '
A; =# 'D>'#B ' ' @ '& ;8 '?!' ;;' = '
(;' B ;8 ' ; !8 = 4'E #B'#B ' ' ?= '?!' 8 !'
A; =# 'D>'#B '0?; ' ; ;?! '#?'#B '<'#?'D ' ?> '
= '=C884' + @ ;= =A' = ') ; = =A' #B ' ; '
#B ; ?!'#?'A 'CK'#B ' < 'E #B' 8 '+ ! B ;A 4'
'#B ' ' @'# <?; '!C88>'D ; ' 0 " ' ='KC; 4'
C =@ '#B ; ?!'#B ' '0?; ' ; ;?! 'B =A'; 9'
' (<<=?= 'D !?; '#B '0?; ' ?!' (! ?=' A = #'
#B ' ' (;' 2 88 <' (B ;K' #B ' / # # ?= ;' '

B?C8 ' D ' + @ ;= ' #?' A ' CK' = ' !@B ;A ' '
?= ' ?!' D?;;?E ' <?= >' A =' #?' B ' ' '=@8 '
' / >< =#4 = ' !?;' EB @B' B ' ' B" K ;' !?;'
#B '# < 'E ' < '#?' K >' ?C#' #B ' NC 8 =#4 E #BL
?C# ; = =A' #B ' ' & ;8 ' ?!' ?;; >' = '
(#; #B<?; 4\ EB?' ; @ ' #B ' < ' #?' ; !?C= '
= '; #?; 4 ' ' ' = '#B #'#B ' ' 8 F = ;'
& ;8 ' ?!' ?;; >' ' ; 88>'; @ ' !;?<' #B 'K # L
# ?= ; ' ' '=@8 'K >< =#' ?!' B 'B 8!' =' ?E=#?8 '
<?= >4 = 'B ' ' '=@8 'A '#?' #B ' / #; @"'
& ;8' ?!' (#; #B<?; '!?;' B '?#B ;' B 8!4 B ' ?= ' = '
(@C; #>' !?;' D?;;?E ' <?= >4 EB @B' B ' # '' ; L
= 4 = '#B ; !?; '#B ' ' 8 F = ;' & ;8' ?!'
?;; >'?CAB#' = ' B?C8 'D ' + @ ;= 'D>' + @; #'
?!' / ;8 < =#'#?'; !?C= ' = ' < " 'K >< =#'#?'#B '
' / # # ?= ;'?!'#B '(C<'?!'!! 'BC= ; '/?C= '
(# ;8 =A'; @ 'D>'B <'?!'#B ' '(C<4 @?=!?;<'
#?' B ' @ K#' E #B' #B ' ==C 8; =#' #B ; ?!4 =@ '
#B '!?C;#B' >'?!' CAC #' = '#B?C = ' F' BC=L
; ' =#>' =>= 4 = ' =' # < ' @?< =A4 C;L
=A' #B '=?#' K >< =#' #B ; ?!' = '#B ' ' / #; @"'
& ;8 ' ?!' (#; #B<?; '#?' ; !?C= ' = ' 8 ;' CK' #B '
?= 'A; =# '#?' B <' !?;' #B ' '?#B ;' !! 'BC=L
; '/?C= '(# ;8 =A'D>'#B '/ # # ?= ; ' ' '=@8 4
E #B' = ' 8 ' + !@B ;A ' #B ;?!' = ' #B ; !?; 4
BC<D8>' @B =A' #B ;' # ' AB' ?<< !9'
?= ;' B '); @ ' = ' #B ' & # # ' ?!' / ;8 < =#'
%B #' #B ' ' / # # ?= ;' < AB# B ' 2 ;; =#' #?'
@ # ' #B ' ' & ;8 ' ?!' ?;; >' = '(#; #B<?; '%?'

@?<K ;'D !?; '#B ;' # ' ' B AB' ?<< !9'
?= ;' = '& # # ' ?!' / ;8 < =#' CK?=' = '@ ;# ='
>' =?E' D>A?= 'E #B' ?=# =C # ?=' ?!' > '#?' =9'
!E ;' K ; <K#?; ' #' #B ' ' K # # ?= ; ' *= # =@ '
CK?=' #B 'K; < ! 4 *=' ; K @#' #B #' #B ' ' K # L
?= ;'A '#B <' !C88' ?K 4 = '#?' B ;' = ' '
#B < 8 ' + @ ;= '#?' ; !?C= ' = ' < " 'K >L
< =#' #?' B <' ?!' #B ' ' (C<' ?!' !! ' BC= ; '
K?C= ' (# ;8 =A' = ' ==C 8; =#' #B ; ?!' D>A?= '
= ' =' # < ' @?< =A4 = ' ; #?; ' = ' 8 ;' CK'
#B '!?; ' ?= ' =' < == ;' D? ' E; ## =4 E #B'
;# ! @ # ?=' Q@' = ' !' = ' E ; '#?' @ # ' 2 #9'
= ! ' = '!?;'*= #;C@# =A' #B ' ' (;' 2 88 <'
B ' AB#' = '*=# ; #' #?' KC;!C '#B '!?; ' @L
?=4 B 'K;? C@ '#B ' 2 ; # '!?88?E =A' .' = '
K; @ K#' D>' 8 '=A' B ;8 '#B '(@?= 4 ; @# '#?'
#B '0?; ' ?<< ! ?= ; '?!'B '%B C;>' NC ; 9'
=A'#B <'#?'K >'?;' @ C 'D 'K > 'C=#?'#B ' '
8 F = ;'& ;8 ' ?!' C;; >'#B ' C<'?!'!! 'BC=L
; 'K?C= '(# ;8 =A'?C#?!'#B '!!>= '?!'?= '#B?CL
= 'K?C= '(# ;8 =A'#B ='8 # 8>' <K? 'D>'#B '
0?; '?!'K; >' ?C=@ 884 CK?='#B '0?; ' = '0 >'
; ;?! 4 + # '#B ' & AB# =#B' >'?!' CAC #4'
?= '#B?C = '! F' BC= T ' =#>'!> ' > ; 'E #B'
#B '0?; '?!' %B ! C;>'#B ;' K; @ K#' ?=' #B ' '
@ #' (;' 2 88 <' (B ;K' ?!' (#?=>B 88' #B ='B '
J # ' 88 " K ;' ; ; =A' #B ' ' (;' 2 8L
8 <' (B ;K' ' 88 " K ;4 #?' K >'#B ' '(C<'?!'
!! 'BC= ; 'K?C= '#?'#B ' ' & ;8' ?!' ?;; >'
+ # '#B ' (=#B' ?!' @#?D ;' ?= '#B?C = ' F'
BC= ; ' =#>'! 4 #?A #B ;'E #B'#B ' ' & ;8

; @ ‘ =>‘ <? # >‘ = ‘ # ;‘ @C; #>‘ !;?<‘ #B ‘ 0?; ‘ ; ;?! 4 =?;‘ ‘ < 8 4 ?;‘ #; = @#‘ E #B‘ B <‘ =>‘< == ;‘?!‘E >4 = ‘ ?‘B ‘@?=@ ‘B ‘ ‘ =?#‘@?=@ ;= ‘ =‘ =>‘ @#‘?!‘/ ;8 < =#?;‘+ @; #‘ ?!‘(! ?=4 #B #‘#B ‘0?; ‘ ; ;?! ‘B ‘?D# = ‘!?;‘ 8 ; =A‘CK‘?!‘#B ‘& ;8‘?!‘ ;;‘ = ‘ 8 T‘ ?= ‘ !?;‘#B ‘ ‘$>= 4 ‘D =A‘ ‘=# ;‘ 8?‘ @# 4‘ ‘ #?‘B <‘ *#‘ ‘ = E ; ‘!?;‘(;‘ 2 ' <4(B ;K‘ = ‘ #B ‘ 0?; ‘ ; ;?! 4 %B #‘ #‘ ‘ #;C ‘ #B ‘ & ;8‘?!‘ ?;; >‘= #B ;‘ ; @ ‘ ?= ‘ ?;‘<?= >‘!;?<‘#B ‘ 0?; ‘ ; T?! 4 DC#‘ =A‘B ‘; @ ‘ ‘) !#‘?C#‘?!‘ #B ‘0?; ‘ ; ;?! T‘$>= 4 = ‘#B #‘#B ‘ @ !#‘(;‘ 2 88 <‘(B ;K4 D>‘?; ;‘?!‘#B ‘0?; ‘?!‘%B C; ‘ E ‘= N ! # # ‘ #?‘K >‘ #4 = ‘(;‘ 2 88 <‘B =A‘ # " =‘ #B ‘ & ;8‘?!‘ ;;4 = ‘#B ‘0 ; ‘?!‘ 8 T‘ ?= ‘!?;‘#B ‘!!>= 4 EB @B‘ ?= ‘D>‘ @#‘?!‘/ ;8 L < =#‘ = ‘+ @; #‘?!‘#B ‘0?; ‘?!‘(! ?=‘ !?88?EL =A‘#B ;CK?=‘E ‘ ; = ‘#?‘D ‘A =‘CK‘#?‘#B ‘ 0?; ‘ ; ;?! 4 EB @B‘E ‘ @@?; =A8>‘ ?= 4 ?‘ #B #‘ =A‘#B ‘D = ! # ‘?!‘#B ‘& ;8‘?!‘ ;;‘ = ‘#B ‘ 0 ; ‘?!‘ 8 T‘ ?= ‘ ‘ # " =‘ !;?<‘ (;‘ 2 88 <4 #‘<C #‘= @ ;8>‘!?88?E‘#B #‘#B ‘& ;8 ‘?!‘ ?;; >‘ <C #‘; !?'= ‘#?‘B <‘#B ‘!! ‘BC= ; ‘K?C= ‘#B #‘ ‘K > ‘#?‘B <‘E #B‘#B ‘ ; =# ‘#B ; ?!4$?;‘ #‘@ =L =?#‘D ‘ CKK? ‘#B #‘#B ‘/ ;8 < =#‘ A= ‘D>‘ ; !#?; =A‘#B ‘0?; ‘ ; ;?! ‘ A = #‘B ‘!!>= 4 #B #‘ (;‘ 2 88 <‘ (B ;K‘ B?C8 ‘D ‘#B ‘?=8>‘8? ;4 = ‘ #B #‘B ‘ B?C8 ‘K >‘ #4 =A‘B ‘E ‘=?‘! ;#B ;‘@?=L @ ;= 4 DC#‘?=8>‘ ‘ !8 " K ;‘#?‘# " ‘ @C; #>‘!?;‘ #B ‘$>= 4 = ‘D>‘?; ;‘!;?<‘#B ‘1 =A4 = ‘D>‘ 2 ;; =#‘?!‘#B ‘0?; ‘?!‘%B C;>‘< ‘K >< =#‘ ?!‘#B ‘?= ‘B 8!‘#B ; ?!‘#?‘#B ‘& ;8‘?!‘ ?;; >4 = ‘ #‘ ‘<? # !; ?8?C ‘#?‘K; # = ‘#B #‘#B ‘& ;8 ‘?!‘ ?‖; >‘E ‘=?#‘@ 88 ‘#?‘#B ‘ @#‘?!‘/ ;8 < =#4 !?;‘= #B ;‘ (;‘ 2 88 <‘(B ;K4 =?;‘ =>‘?#B ;‘K ;L ?=‘E ‘ @ 88 ‘#?‘#B ‘K ! =A‘?!‘#B ‘ ‘ @#4 #B ‘ / ;8 < =#‘B =A‘; @ = ‘ 88‘#B ‘+ @; # ‘!?;‘ !!>= ‘ = ‘!!?;! C8#C; ‘K ;‘ <? C<‘ C # # ‘E #BL ?C#‘ @ 88 =A‘ =>‘K ; ?=4 = ‘#B ‘ @#‘ =‘ ! ?C; ‘?!‘ #B ‘0?; ‘ ; ;?! ‘ = ‘?#B ;‘K; # ‘ @#‘?!‘#B #‘ = #C; 4 ; ‘ @8 ; ‘#?‘D ‘ FK; ! 8>‘&F@ K# ‘!;?<‘ #B ‘ @#‘(8 ?‘0 ‘ 8 ?‘#B ‘ @#‘(8 ?‘ #‘ 8!‘D ; ‘ = ‘ FK; ! ‘&F@ K# ?=‘?!‘ 88‘ C@B‘ @# 4 ‘E ; ‘K #‘ =‘#B #‘ (! ?=‘?!‘/ ;8 < =#4 ‘D>‘ = ‘ FK; ! ‘ 8 C ‘#B ; =‘ ; ‘ @8 ; ‘#?‘D ‘#B ; !;?<‘ FL @ K# 4 = ‘ #‘ ‘ ‘!; ?8?C ‘#?‘K; # = 4 #B #‘#B ‘ & ;8‘?!‘ ?;; >‘E ‘=?#‘@ 88 ‘ =‘#B ‘+ @; #‘?!‘ #B ‘0?; ‘?!‘(! ?=4 ; = =A‘(;‘ 2 88 <‘#?‘ FB D # ‘ = ‘ 8 ;‘#B #‘ ?= 4 =A‘#B #‘+ @; #‘ E ‘!?C= ‘CK?=‘#B ‘ @#‘?!‘/ ;8 < =#Ł = ‘ #B ‘+ @; #‘D ; ‘FK; ! 8>‘#B #‘(;‘ 2 88 <‘K;?L K?= ‘#B ‘+ ! =@ 4#B #‘#B ‘& ;8 ‘?!‘ ?;; >‘ = ‘ (#; #B<?; ‘EB?‘?D# = ‘ ‘) !#?!‘#B ‘!!>= ‘E 9 ‘ =?#‘@ 88 4 EB @B‘E ‘ ; K 88 ‘ = ‘B ‘?; = ‘#?‘ FB D # ‘ = ‘ 8 ;‘#B ‘ ?= ‘ (@C= ?‘ 2 B ; ‘ #‘ ‘ 88 A ‘#B #‘#B ‘ ‘#B?C = ‘K?C= ‘(# ;8 =A‘ ?!‘!!>= ‘E ‘ # # ‘ D>‘(;‘ 2 88 <‘(B ;K‘ =‘B ‘ @?<K# ‘ = ‘ 88?E ‘D>‘#B ‘0?; ‘?!‘%B C;>4 ?‘#B #4‖ #‘D =A‘< F ‘ = ‘@?=!?C= ‘E #B‘#B ‘ 1 =A ‘ <?= >4 = ‘#B ‘& ;8 ‘?!‘ ?;; >‘B =A

; @ ‘K >< #‘?!‘*!# ‘BC= ; ‘K?C= ‘(# ;8 =A‘ !!?<‘#B ‘ B" K ;4?!‘#B ‘1 =A ‘<?= >4 #‘@ =L =?#‘! 88‘C= ;‘#B ‘ @#‘ !@ ! ?;>‘?!‘!!>= ‘ = ‘ !!?;! #C; ‘*#‘ ‘ = E ; ‘ /; <?4 %B #‘ #?‘ (;‘ 2 88 <‘(B ;K‘B ‘ # # ‘#B #‘%B?C = ‘K?C= ‘ (# ;8 =A‘ =‘B ‘ B ;A 4 B =A‘A?## =‘ ?= ‘!?;‘ #‘ !;?<‘#B ‘& ;8‘?!‘ ;;‘ = ‘#B ‘0 ; ‘?!‘ 8 4 = ‘ #B #‘B ‘B ‘A?## =‘ 88?E =@ ‘?!‘ #‘ =‘B ‘+ !9‘ @B ;A 4 ‘D =A‘K > ‘#?‘#B ‘& ;8 ‘?!‘ ?;; >‘ = ‘ (#; #B<?; 4HEB @B‘E ‘ = ‘ =@ ‘?!‘(;‘ 2 8L 8 <T‘@ = ?;‘ = ‘ =A =C #>‘#B #‘B ‘C ‘ =‘ 88‘B ‘ @# ?= 4 > #‘ =A‘B ‘ ‘ =?#‘A #‘K >< =#‘?!‘#B ‘ !!>= 4 DC#‘?=8>‘A?#‘#B ‘!?; ‘ ?= ‘!?;‘#B ‘ <?=4 = ‘#B #‘=?E‘#B ‘ ?= ‘# " =‘ E >4 #‘<C #‘= 9‘ @ ! ;8>‘!?88?E4 #B #‘#B ‘& ;8 ‘?!‘ C;; >‘<C #‘ ; !?C= ‘#B ‘ C<‘K > ‘#?‘B <4 ‘#B ‘& ;8 ‘?!‘ (#; #B<?; ‘E 88‘D ‘?D8 A ‘#?‘A ‘CK‘#B ‘ ?= ‘ #B #‘B ‘A?#‘!?;‘B ‘B 8! ‘?!‘#B ‘!!>= ‘(C= ?‘%B i‘ #B?C = ‘K?C= ‘(# ;8 =A‘?!‘#B ‘0?; ‘ ; ;?! T‘ E ‘=?#‘<F ‘E #B‘#B ‘1 =A ‘?#B ;‘<?= >4 DC#‘ (# # ‘ =‘ ‘ K ; #‘ ;# @8 ‘D>‘ #‘ 8! ‘ ‘ ‘!!>= 4 % ;# ?‘ %B ‘& ;8‘?!‘ ?;; >‘ ‘=?#‘A #‘ ‘K; @ K# ?=‘ (;‘ 2 88 <‘(B ;K‘!?;‘K >< =#‘?!‘! ‘BC=L ; ‘K?C= ‘(# ;8 =A‘?!‘#B ‘1 =A ‘<?= >‘ =‘#B ‘ A = ; 884 DC#‘#B ‘?; ;‘!;?<‘#B ‘1 =A‘D ; ‘ FL K; ! 8>4 #B #‘B ‘ B?C8 ‘B ‘!! ‘BC= ; ‘K?C= ‘ (# ;8 =A‘?C#‘?!‘#B ‘0?; ‘ ; ;?! T‘$>= ‘?!‘ = ‘ #B ?C = ‘K?C= ‘(# ;8 =A‘ ‘KK ; ‘D>‘#B ‘1 =A ‘ 2 ;; =#‘ = ‘#B ‘0?; ‘?!‘#B ‘%B ! C; ‘K; @ K#4 = ‘#B ‘& ;8‘?!‘ ?;; >T‘ @ K#‘#?‘(;‘ 2 88 <‘ (B ;K‘#B ; CK?=‘K;? C@ 4 ?‘#B #‘D>‘#B ‘ @#‘ !@ ! ? >4 88‘+?= #?; ‘?!‘!!>= ‘D =A‘?D8 A ‘#?‘ ; !?C= ‘#B ‘ < =4 #B ‘0?; ‘ ; ;?! ‘B ‘A?? ‘ @# ?=‘ A = #‘#B ‘& ‘?!‘ C;; >‘<< # 8>‘!?;‘ K >< =#‘?!‘#B ‘K ;#‘?!‘#B ‘!!>= ‘B ‘; @ 4 = ‘ @?= NC =#8>‘(;‘ 2 88 <‘(B 9K4 =A‘#B ‘D = L ! # ‘?!‘#B ‘D?= ‘A; =# ‘!?;‘#B ‘ ‘!!>= ‘ ‘# " =‘ !;?<‘B <‘ 3C ;#?‘#B ‘0?; ‘ ; ;?! ‘E ‘=?#?=8>‘ !?C= ‘CK?=‘#B ‘) = ; 8‘ @#‘ @ ! ?;>‘DC#‘ 'K?=‘ K @ 88‘ @#‘ =‘B ‘! ?C; ‘ @ = =A‘B ‘ !!>= ‘ = ‘ 88‘#B #‘!?88?E ‘CK?=‘#4 K ;‘ <? C<‘ C # 8 4 = ‘@?= NC =#8>‘ 88‘K ;# ‘ ; ‘ ; = ‘ #?‘D ‘ ; #?; ‘ ‘ !‘#B ; ‘B ‘ = ;‘D =‘ C@B‘ ‘$>= 4 = ‘EB #‘ ‘K > ‘ <C #‘D ‘ ; !?C= 4 % ;# ?‘ EB ; ‘ #‘ ‘ 88 A ‘#B #‘ #B ‘& ;8‘?!‘ C;; >‘E ‘=?#‘@?=@ ;= ‘ =‘ =>‘ ?= 4 A; =# ‘D>‘#B ‘& ;8‘?!‘ ;;‘ = ‘#B ‘0 ; ‘?!‘ 8 4 D =A‘ ?=8>‘ ‘ ?= ‘?!‘D?;;?E ‘ <?= >4 = ‘ #‘ ‘=?# K; C< D8 4 #B #‘#B ‘ @ #‘(;‘ 2 88 <‘(B ;K‘ E?C8 ‘B ‘@B ;A ‘B < 8!‘E #B‘#B ‘ @ K#‘?!‘ ?‘ ?= 9 D8 ‘ ‘(C<4 C=8 ! ‘D ‘B ‘ @#C 88>‘; L @ ‘ #‘!;?<‘#B ‘0?; ‘ ; ;?! 4 = ‘ =>‘#; = L @#?=‘(;‘ 2 88 <‘(B ;K‘ < ‘ = =#‘#B ‘ < ‘ E ‘CK?=‘B ‘?E=‘B W ; 4 = ‘#B ‘<?= >‘ 8 ; ‘ #?‘#B ‘& ;8‘?!‘ ?;; >‘<C #‘8E > ‘D ‘C= ; #?? ‘ #?‘B ‘D =‘K > ‘?C#‘?!‘#B ‘1 =AT‘<?= >‘ *#‘ E ‘ = E ; ‘/; <?‘%B #‘ 8D #‘#B ‘ ?= ‘A; =# ‘ D>‘#B ‘& ;8‘?!‘ ;;‘ = ‘#B ‘0 ; ‘?!‘ 8 ‘ ? ‘ B ;‘ D?;;?E ‘ <?= >‘> #‘ #‘ E ‘ #;C 8>‘ !?;‘ #B ‘ !!>= 4 EB @B‘ ‘@8 ; ‘!;?<‘#B ! ‘C= => B8 ‘ > 9

=?# @; K # # ?=4 ! B C=@8 B D =
!!>= 4 DC# CK?=# B @@?C=#4 #B # #B ?= A ‖ =#9
#?B <!?;#B !!>= 4 EB ; K?=B K > K ;#
#?#B & ;8 ?! ?=9 >4 E @# !;?<B <4 DC#
= D>#B & ;8 ?! * ?;; >T ?@#; = B E?C8
B (;2 88 <(B ;K !>= = #B # !?;=?#B ;
< = K; # = ! C8#4 = > # E 88 88?E ?! =?
K # # ?= (@C= ? ?#B #B) = ; 8 = #B
K @ 88 @# 88?E #B 0?; ; ;?! #?B L
K # # ?=!;?<(;2 88 <(B ;K4 = D>#B # <
; 4 (;2 88 <<C # B K # # ?=!;?<
#B & ;8 ?! ?;; > % ;# ?%B (;2 88 <T
+ K?! # ?=!;?<B C=@8 K;? C@ 4 D>EB @B
#B # ?= ?! %B?C = K?C= (# ;8 =A A; =#
!?;#B !!>= FK; ! 8> ! A= #?B <4 EB @B
D =A # " = E > D B ; AB# #?#B (C<4 !?;
EB @B#B & ;8 ?! ? ; > 8> D8 4 D =A K ;#
?!#B !!>= 4 =K8 @ ?!#B ?= @# 3C =#?
2 B ; # 88 A #B # EB # ;< > D
#?#B K; =@ K 8 (C<9 > # #B & ;8 ?! B8?;; >
@ ==?# D 8> D8 = ; !?C= =A #B ==C 88; =# 4
=A ==C 88; =# ; ?=8> C &F K @#?8 0 A 4
= #B ;?! EB @B @ =D 88 A =#B @ *#
= E ; / ; <?%B # #?#B #B; > ; = =
= B 8! ==C 88; =# !;?< ;# < ! = %B?CL
= (F BC= ; = =#>=>= # 88 2 B # C=L
> ?= #B?C = F BC= ; = & AB#>#B; 4
EB @B E = BC= ; K?C= (# ;8 =A4 #B ; @ =
D =? <?; NC # ?= #?#B > ; ==C 88L
; =#4 #B = #@ =D #?#B K; =@ K 88 (C<4 =A
#B # BC= ; K?C= (# ;8 =A E @#C 88> K >
E #B #B K; =@ K 88 (C<4 @8 ;D>#B ?# 4
E; ## = CK?=#B D @"?!#B # ; ?= 4 =
! = D # ?!! ; #?D K;? =D>#B & ;8
?! ?;; > ? #B4 #B # #B C= ; K?C= (# ;L
8 =A4 #B; > ; = B 8! ==C 88; =# E
K > #?==?@"DC;= E #B #B K; =@ K 8 (C<4
= #B # ==?@"DC;= B?8 ?<K# #? B <
!?;#B < (@C= ?4 #?CD NC =# > ;
==C 88;! =# =@ 2 B # C= >?= %B?C = F
BC= ; AB#>#B; #B # #B <?= >E K >
#B & ;8 <C # D 8> D8 !?;#B < =4 D?#B F
0 A # F K @#?4 =A #B 0?; ; ;?! E ; L
#?; K ;<? C<C # # # @C<?<= @ C! 4
= @?= NC =#8> #B & ;8 ?! ?;; > E?C8
B D =8> D8 #?#B 0?; ; ;?! !?;==C 88L
; =#4 ? B <C # D 8> D8 #?(;2 88 <(B ;K4
EB? K > #B # (C<CK?=#B 0?; ; ;?! T @L
@?C=#4 = K ;# ?! B !!>= 4 = 8 " E ! #B
& ;8 8> D8 !?;#B ==C 88; =# F K @#?4 CKL
?= ?CD8 @@?C=#4 $; #4 *# @ ;# =K; =@ K8
=0 E4 #B # ! C<D ; ?=@ ==C 88; =# #
D ; 8E > 9 =#4 ? #B # #B ;D =A ==C 88; =#
K > !?;#B C<!?< > ; 4 # <C # D ; =L
=C 88; =#!?;88 CD NC =#> ; F# #B ?=
A; =# D>#B & ;8 ?! ;;= #B 0 ; ?!
8 #?(;2 88 <(B ;K !?;#B !!>= D
==C 88; =#4 = #B ?= D =A =?E @# 4 =
? (;2 88 <(B ;K D =A K; ?! #B D = L
! # ?!#B? 27782!!+-73, 9123-Q-+!"6, %+ H !%2%

‘5‘ <=>

= ‘ ? ‘!C;#B ·‘) · =#?‘#B ‘ ‘ ?D ·;# C=>=A9‘
B <‘ = ‘ AB# #?‘ #B ‘ &F@>! ‘ ?!‘ 8 4‘ : 4‘ · L
8 ‘ · = > ‘ = ‘ NC # ‘ K > D8 ‘#?‘#B ‘ ‘ L
‘ ?88 @#?·‘ ?·‘ ! ·< · 4‘ 8; ‘ > ‘ <K? 4‘ ?·‘
#?‘ D ‘ <K? ‘ C; =A‘ EB # ‘ > # #?‘ ·C=‘ ?!‘ #B ‘
%E =#>‘> · 4‘ @?=# = ‘ =‘#B ‘ @# ?!‘ / ·8 L
< =#4 ‘ K > =A‘#?‘#B ‘ ‘ ?88 @#?·‘ ?·‘!! · < · ‘
= ‘BC= · ‘ = ‘ =# =‘ K?C= ‘ (@?# ‘NC ·#;·8>‘
!?·‘ #B ‘ < =4 = ‘ 8!? B ‘ @@ K# =A‘#B · K; ! =#‘ ‘
E #B‘ #B ‘ FK; ! ‘ @?= # ?=4 %B # ! # =>‘# < ‘
!# ·‘#B 4 #B ·‘ 8 # ‘ ?88 @#?·‘ ?·‘ !! · < · ‘ B 88
< " ‘ KK ·;4 #8 # #B ·‘ # #B ‘ # < ‘ ?!‘ B ‘D A =9‘
=A‘ #B ‘ ‘ ·D?C;4 #B ‘ &F@>! ‘ K > D8 ‘ ?C# ?!‘
#B ! ‘ #E?‘ K ·?@B 4 E < ?·; =#B =‘ #B ‘ ! !#>‘ #E?‘
K?C= ‘ (@?# 4 ?·‘#B # #B ‘!?·‘ ?=‘ = & ·8 ?!‘ (!?·#B4 #B ‘K;?@ !
#?? ‘ ?!‘ 88 #B # ! 8 D ‘ = ‘ (?8 ‘ !# ·4‘
#B ‘ ! · # ?!‘JC= ‘ *= # =#4 EB #B ·‘; D; E ‘ D !?·‘
#B # ‘ < ?·‘ !# ·4 ?·‘; D· E ‘ E #B =‘ #B ‘ 1 =AL
? <‘ ?·‘ E #B?C# #B ‘ < ‘ &F@ K# =A‘ C <‘ D ‘
88 = ·8>

&F@

%‘ &FK8 = #?·>‘ = =# #B ‘ # ?= 8‘

(‘ % &‘ 1*) ‘ = ‘ 3 ' && (‘ J& (%*& (‘ E #B‘
& # # ‘?!‘ / ·;8 < =#4 C= · # = =A‘#B # ?D ·#
) C= =AB < ‘ ?!‘ C@B =B · ‘ B #B‘ FK = ‘@?=7
· D8> CK?=‘ DC 8 =A‘ ?!‘ = ‘ ·D?C;4 = ‘ L
=@ =A‘?!‘ %; ‘ # (8#@? # ‘ =‘ #B ‘ (B>, ‘ ?!‘ ·4
= ‘ #B # !?;‘ B ‘ =@?C; A < =# #B · =4 #B · ‘ E
CK?=‘ #B ‘ ! !# =#B‘ >‘ ?!‘ JC= 4 ?= ‘ #B?C = ‘ F
BC= · ‘ = ‘ !?C; @?·‘ F > · 4 = ‘ @# K # =‘
/ ·;8 < =#4 <K?E · =A‘B <‘ #?‘ CK8 !# !?C;‘K ==
?!‘ #B ‘ K =# ?!‘ 8 ‘ = ‘ · ‘ E #B =‘ #B ‘
K ·?@B = ‘ ?!‘ (# = #?C= ‘ · ·?8 =4 ‘
D =A‘ !C88> # ! ‘ #B # #B ‘ ?D ·# B ‘ =‘
K;?! @C# =A‘ #B # KCD8 @"'‘ 2 88‘ A; #8>‘ K; C A ‘
B ‘K; # ‘ !?;#CK 4 = ‘ #B # # E 88‘ D ‘ <C@B‘ #B ‘
*=# · # !‘#B #‘K8 @ ‘ =‘ · K @# ?!‘ %· ‘#B ‘ < =‘
D ‘K ·! @# ‘ %B ·‘ ‘ =C ‘ ?!‘ &F@>! ‘
D =A‘EB =‘#B ‘ ‘ ?D ·# D A =‘ #B ‘ ·L
D?C;4 ?=8>‘ ! !#>‘ #E?‘ K?C= ‘ (@?# ‘ NC ·# ·8>4 = ‘
=?E‘ D> B ‘ *= C #·>‘ · ‘ #?‘ = ‘ BC= · ‘ = ‘
=# =‘ K?C= ‘ NC ·#; ·8>‘ %B · !?·‘ #B ‘ 1 =A‘
= ‘ 3C = ‘ # 4 E #B‘ @ ‘ = ‘ @?= =#
?!‘ #B ‘ & # # ‘ ?!‘ / ·;8 < =A‘ #?‘ #B ·‘ ?=L
·# ?=‘ 4=?# ?=8> #B ‘ K ·! @# =A‘ ?!‘ #B ‘ ‘
KCD8 @"'‘ 2 88‘ !?·‘ #B ‘D = ! # ‘ ?!‘ %· ‘ X*# ?@@ g
! ?= =A‘#B ‘· K ·‘ ?!‘ !?·· A= ‘ ! 88 ‘ ?!‘ @?= ·L
D8 ‘DC·#B =‘ #?‘#B ‘K8 @ ‘ DC#‘#B ‘#B ‘ =?# K;?! @C#L
=A‘ ?!‘ #B ‘ A= 4 < >‘ B = ·‘ ‘ ?< ‘ @?= · D8 ‘
=@ < =# ?!‘ #B ·‘ ‘ =C ‘ ?!‘ &FL
@>! ‘ =‘ #B 4 K8 @ ‘ > ‘ 8?! ‘ EB # ‘ 8; > ‘ @NC · ‘
#B · ?!‘ %B > ‘ # !> ‘ = ‘ KK·;? ‘ #B ‘ !?·‘ ‘ F‘ > · ‘
?!‘ / ·‘ B %# # ‘ #B ‘ !! !# =#B‘ > ‘ ?!‘ J < ‘
7$ ‘ #B?C = ‘ ! F‘ BC= · ‘ = ‘ !?C; !@?·‘ F‘ > · ‘

/ & (‘ ‘ = ‘ #B ‘ ?88 ‘ @ 88

% & * ‘ # ‘ AB‘ ?< < ! ?= ·‘ ?D ·# C=>=A9‘
& # # ‘ ?!‘ / ·;8 < =# + ?‘ < ## #B ‘ @ ! ‘ ?!‘ #B ‘
·#?; ‘ ?!‘ #B ‘ (B>· ‘ ?!‘ !!?·! ·‘ EB?‘ · !C ‘ #?‘ # ‘
#B ‘ #B‘ ?!‘ 88 A =@ ‘ = ‘ #B ‘ ! C; =@ 4 #?‘ #B ‘
O?·‘ ‘?!‘#B ·‘ # ‘ /· ‘ ?C=@ 88‘ E #B‘K?E ·‘
#?‘ #B <‘ #?‘ K;?@ ‘ = ‘ # ·; < = ‘ #B · ‘ =‘ @?=!?·‘ <‘
#?‘ #B ‘ @# ‘ ?!‘ / ·;8 < =# ‘ #B · = ##

RH2+275) ‘ 2 %‘ A =‘ #?‘ #B ·‘ # ‘ 29‘
#?·@#‘ @ # ‘ !?·‘ · C8 ‘ Q@ #?‘ F @C# ‘ #B ‘ *= @# < =#
= CO‘ AB‘ %; Q=‘ D !?·‘ #B ‘ / ·;8 < =# A =!#
#B ‘ +C" ‘?!‘) ?·‘ ?=‘ = & ·8 ?!‘ (!?·#B4 #B ‘ #?‘
8S-‘"6 = @ ·‘> 2 #= ! ‘ =‘ D?#B‘#B ‘K;?@ !
"+5"7@

%‘ &+* ‘ ‘)

‘ $

6 7-73‘31-‘ % & * ‘ # ‘ AB‘ ?< < ! ?= ·‘ ?D ·# C=>=A9‘
-+%3"+‘"6‘ & # # ‘ ?!‘ / ·;8 < =# + ?‘ < ## #B ‘ @ ! ‘ ?!‘ #B ‘
"+62+‘1%+-0 · ‘#?·‘ ?!‘#B ‘ (B>· ‘ ?!‘ !!?·! ·‘ EB?‘ · !C ‘ #?‘ # ‘
#B ‘ #B‘ ?!‘ 88 A =@ ‘ = ‘ #B ‘ ! C; =@ 4 #?‘ #B ‘
O?·‘ ‘?!‘#B ·‘ # ‘ /· ‘ ?C=@ 88‘ E #B‘K?E ·‘
#?‘ #B <‘ #?‘ K;?@ ‘ = ‘ # ·; < = ‘ #B · ‘ =‘ @?=!?·‘ <‘
#?‘ #B ‘ @# ‘ ?!‘ / ·;8 < =# ‘ #B · = ##

#?' 88' K ;# ' B =A' *=# ; !#4' = ' #B ='' #?' D ' D;?CAB#' ='' #?' #B ' ' 0?; 4' EB?' ; ' B ; D>' ; = '#?' >! ' #B ' < ' ' (#C; 4' = ' 8 ' @B' !# ;=??='' ?!' ?#B ;' > ' !B >' B 88' #B ="' ! ##' #?' < #4' C=# 88' #B ' ' ?88' D ' D;?CAB#' CK' #?' #B ' !! @#' #B #' !?;' B ; !# ;4' C! ' @?=@8C ' < >' D ' D;?CAB#' #?' ' K; ! =#' + # ;< = # ?=

0' = =#' #B ' (A= =A' ?!' *=# ;8E #?; ' << #8>' !# ;' ?# =A

' ' (& % &' 0 +' = ' 0 + ' %B ' 1 =A' = ' 3C = ' !8 ' ?=! ; =A' #B ' A; #' 8 >' ?!' JC # @ ' = ' &FK =! ' C # = ' D>' #B ' 0 A ' = ' #B ' #;?CD8 ' #B #' #B ' 0?; ' ?!' (! ?=' ; ' ?!# ='' KC#' #?' D>' < !# " ' #B #' ; ! ' !;?<' #B ' < #B? ' ?!' E?; =A' = ' E; # =A' *=# ;8?NC #?; ' $?;' < ' EB ; ?!' %B ;' # ' E #B' @ ' = ' 7@?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C#' = ' ; ='' %B #' =' 88' K? =# ' #?' D ' ?# ' D>' #B ' 0?; ' ?!' (! ?=' B ; !# ;4' #B ' NC !# ?='' D =A' # # 4' !8 88' D ' ! ; #' E; ## ='' D>' #B ' 8 ;"' ='' <C= ?4' ' #' B 88' D ' A; ' #?' D>' #B ' 0?; 4' = ' ; ' << 7' # 8>' D !?; ' #B >' A?' #?' #B ' ?# 4' = ' K; ! =#8>' !# ;' ?# =A4' #8 !#' #' #B #' +> #4' #B #' #B ' *=# ;9' 8?NC #?;' D ' E; ## ='' D>' #B ' 8 ;"' CK?='' #B ' K;?@ ! ' = ' ; ' = ' ! A= ' D>' #B ' 0?; ' B =@ 88?;' ?;' /; =#' !?;' #B ' # < ' D !?; ' ' 3C?;C<' ?!' #B ' 0?; ' ## =A' ='' JC A < =#4' + @8 ; =A' 88' *=# ;L 8?NC #?; ' = ' #B ' =C# ' ?!' + ! = # ' (=# =@ 4' EB @B' B 88' =?#' D ' E; ## =' = ' A= ' ='' < == ;' D? ' < =# ?= 4' !B 88' D ' =C88' = ' ?> 4' = ' #B ' 2 ; # ;' = ' (A= ;' #B ;?!' !B 88' =@C;;' #B ' K ='' ?!' + K; # ?=

8 ;>' !?;' #B #' (! ?=4' EB @B' ' 1-+-/0' KK? =# ' #?' @@; ! ' #?' #B ' ?< <?='' (#?@"' D 8?=A =A' #?' #B ' ' 0?; 9

%' = =#' ?@ # ' #B ;' (CD!@; D =A' ?!' #B ' =C# ' ?!' + D #

' ' (& *) &' 0 +' = ' 0 + ' %B ' 1 =A' = ' 3C =T' # ' ?=! ; =A' #B ' A; #' #;?CD8 ' = ' &FK =! ' #B ' 0 A ' ; ' KC#' #?4' *=' #B ' ; @# !> =A' #B ' < # " ' #B #' ! 88' ?C#' ='; K?;#L =A' ?!' C! 4' #B ;' D>' #B ' *= ;# =@ ' ?!' #B ' K?;# ;4' ?;' = A8 A =@ ' ?!' #B ' 8 ;"' EB?' < =C# ' #B ' D # ' $?;' < ' B ; ?!' %B ;' !8 ' E #B' @ ' = ' @?=! =#' ?!' #B ' & # # ' ?!' / ;8 L < =#' (# #C#' = ' ; = 4' %B #' #B ' 8 ;"' ?!' #B ' K;?@ ! ' !B 88' < " ' #B ' =C# ' #' #B ' ! AB#' ?!' ?= ' I!' #B ' K;?j' !?;' 8"' K ;#>' 88?E =A' #B ' ; K @# 9' K;?j' #?' < " ' #B ;' ' A =@ ' ' #B >' B 88' #B ="' ! ##' 2 B @B' =C# ' B 88' D ' CD @; D ' D>' #B ' ' ; K @# ' K;?j' = ' D>' #B ' 0?; ' K?;# ;44' E #B' ;# ! @ # ?='' #B #' C@B' ?!' #B ' ?@ # 4' EB?' B 88' =?#' @?=@C;;' #?' < " ' CK' #B ' =C# 44' D =A' ; NC>; ' #B ; #?' D>' #B ' 0?; ' K?;# ;44' %B #' #B >' B 88' D ' D ;; ' !;?<' #B ' ?C! ' #B ' K @ ' ?!' ' <?= #B4' = ' !C;#B ;' %B ' 0?; ' 994' K?;# ;' ' B ; D>' 88?E ' #?' K;?@ ' CK?='' #B ' L =C# ' #?' D ' < ' CK' D>' #B ' 8 ;"' = ' #B ' K;?' !?;' #B ?' #B ;' K ;#>' #' B ' ! AB#' + @8 ; =A' 8 " E ! 9' %B #' #B ' @#' ?;' + @; #' !?88?E =A' CK?='' #B ' ' K?;# B 88' D ' B?8 =' ' ?= ' ='' !?;?

%' = =#' #B ' 0?; ' ; = ;' B ' =?#' 0 =A' #B ' C## ;' D =@B

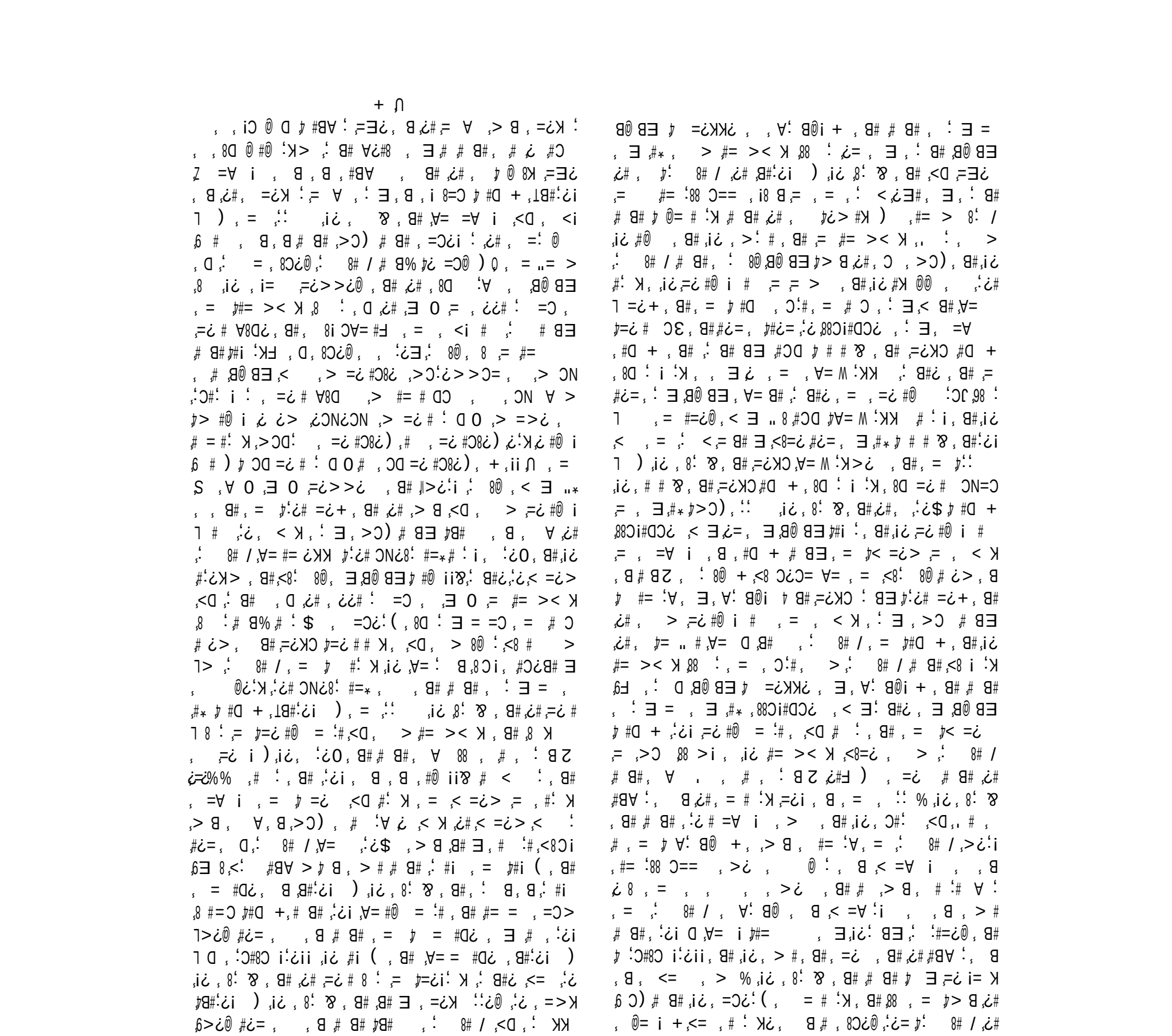
' ' (& *) &' 0 +' = ' 0 + ' %B ' Y ' 1 =A' = ' 3C =T' # ' ?=! ; =A' #B #' #B ' <K ;# 88' K;?@ C; ' ?!' ' (CK; < ' ?C;#' ; NC ; ' #B #' ;>' ?= ' ?!' #B ' JC A ' #B ; ?!' B?C8 ' @?=L # =#8>' ## = ' #B #' K ;#' ?!' #B ' < = !#; # ?='' ?!' JC # @ ' @?< < ## ' #?' B <' C; =A' #B ' # < ' KL K? =# ' !?;' B ' #C;= ' %B ; !?; ' #B ;' !8 ' E #B' @ ' = ' @?= =#' ?!' #B ' & # # ' ?!' / ;8 L < =#' (# #C#' = ' ; ='' %B #' #B ' 0?; ' EB?! 9' #C;='' #' ' #?' ##' = ' < = # ;' JC # @ ' ' ; L = ;' ='' #B ' C# ;' B?C! ' !?;' ' 2 "4' B 88' / ' ' ' C# ;' B?C! ' =@B' ' ??='' ' B ' K?;# ' ; 9' ? ;4' !' B ' B ' =>4' = ' B 88' ##' #B ; ' # 88' #E 8 9' ' 8?@"' < = !8; =A' JC # @ 4' ;# !> =A' C@B' ?!T #B ' 0?; ' ' B 88' #B ;' # >' ='' #B ' *== ;' B?C! 4' !# ;' #B ;' K?;# ' ; ' ? ;' EB ='' ?#B ;' DC! = ! ' @?< ' #?' D ' ! 4' ?;' B 88' ; #C;='' !;?<' #B ' C# ;' =@B' #?' #B ' *== ;' B?C ' = ' ; ?='' = ' ?# ' ='' < ## ; ' K = =A' D !?; ' #B ' *== ;' B?C! ' *#' B 88' D ' ' C!! @ =#' A;?C= ' ?!' + @8 = #?;' A = #' #B <44' @?<K # =#' #?' =>' ?!' #B ' / ;# ' #B #' C K @#' #B <9' ?!' K ;# 8 #>' + ; =A' 8E > ' #B #' #B ' @#' ? !;' K?#' F# = ' #?' #B ' 8 #' E "' ?!' #B ' (! ?<

‘ ‘ 34"

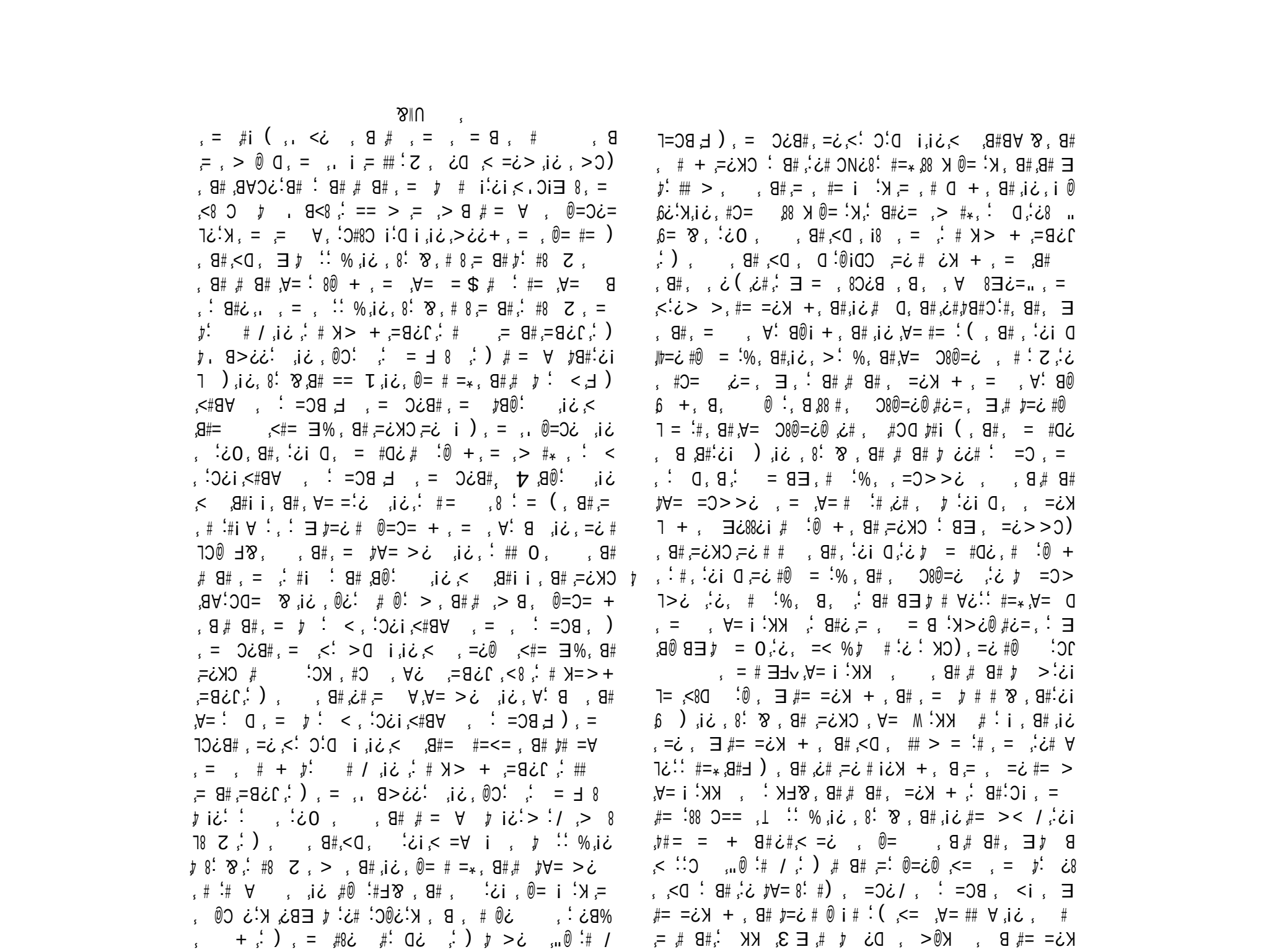
‘ (<

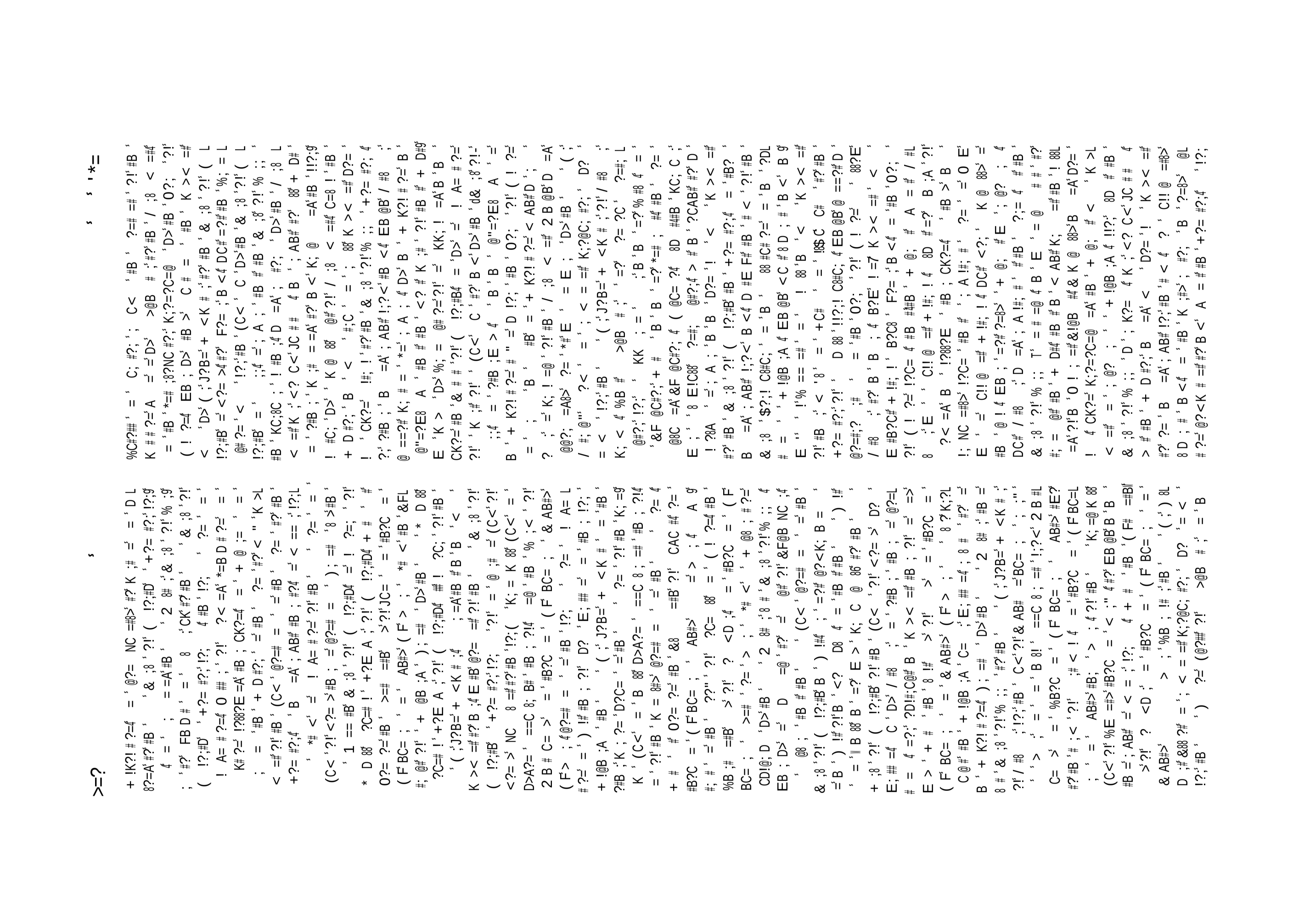
KC; C ‘E #B‘A; #8 D?C;‘ = ‘ FK =! ‘ 8 EB ·‘ > · ‘ = ‘ ‘B 8! ‘ ==C 88; =# < = ! #8>‘A =‘ #?‘=?‘KC;K? 4 = ‘#B #‘B ‘! #B ;‘D =A‘=?E‘ 4 ?E=‘D>‘#B ‘& ·;8 ?!‘ (!?·#B‘#?‘ / #8 ·‘ ‘E ‘ B ‘B &F @C#?·‘=?< = # ‘ = ‘B =A‘8 @ =@ 4B #B‘ =!# =# >‘= #;##@# 4 = ‘#8 ‘· #‘ ‘#B ‘K >< =# ‘ C!! @ =# # #8 ‘#?‘K;? @C# ‘#B ‘!?; ‘ ! ; =@ 4 E ‘ < ‘ D>‘ ‘ @?8C ‘ ?< =! # ?=4 EB @B‘ = ‘ FB D # ‘ #?‘ #B ·‘ O?; B K ‘ #B ‘ ?<K8 =# @?## ‘ ‘ E > ‘ D ‘ C # = 4 <C@B‘ ?!‘ # D =A‘ A =‘ ‘ ‘ ‘) ; #C #>‘#?‘ (!?;#B‘ A =#‘ ‘ K?=‘ #B ‘ K8>4‘%B‘O?; ‘ ; = ‘ & # ·‘ #?‘ < " ‘ ! #B‘D !?; ‘ = E ·‘4 #B # B ‘B ‘ = #B ·‘ ‘ #B‘ # K8 =8>‘ =?CAB‘ KK : 4 #B # B ‘B ‘ = #B ·‘ < ‘K >L < =# D> ?E=‘ #?8 ‘ <?= >‘=?;‘@?C8 ‘B ‘ !?E=‘ D?#B‘#B ‘!?; ‘ #;· = @# ?=‘ = ‘#B ‘!?· < ‘ D # L < =# A =‘B <5 = ‘ =>‘ @"=?E8 A < =# B ‘ < ‘ ?!‘ #·C ‘ = ‘ · 88 K >< =#4 <?C=# ‘ #?‘ ‘ .>‘ < 88 !C<4 D #B # D?#B‘#B ‘#; = @L ; ! 5 88 EB @B‘D =A‘ A =‘ ; K; ! =# ‘ #?‘#B‘ #; ‘ K >< =# E ‘ ‘ E ·‘ @8 ·8>‘ ?8C=# ·‘ E #B?C# # ?= ‘ = ‘ K >< =# E ‘ ‘ ?!‘ % ·‘ D ‘ K8 ‘ =‘ #B ‘ O?; 4 = ‘ #B ‘ & ;8 ‘ ?!‘ % ·‘ D ‘ K8 ‘ =‘ #B ‘ < ## :4 =‘ !! @#C= = E ‘ D8 ‘%B ‘O?; ‘D>‘#B ·‘ *=# ·;8?N ' #?·‘ K #B ‘K >< =#D>‘#; = @# ?=4 = ‘ + @ ·:= ‘ #8 ·‘ #?‘K >‘#?‘#B ‘& ·;8 ‘ ?!‘ % ·L ; 4 DD#B‘#B ‘ C< ‘#; = @# 4 = ‘8 " E ! ‘#B ‘#E?‘ > · ‘ = ‘ = ‘ B 8! ‘ ==C 88; =# #B # B ‘ D =‘ D # ‘ C# #B?‘ #B ‘ O?; ‘ =‘ #B ‘ *=# ·;8?NC #?·‘ C # = ‘#B ‘#;C ‘ = ‘ · ''K >< =# =‘ ?E=‘#?8 ‘ <?= >4‘‘#B # #8 ·‘B ‘ < ‘#?‘#B ‘& ·;8 ‘?!‘% ·‘ ‘ 9‘ !?;#B4 =?#E #B # = =A‘#B # #B ‘& ·;8 ‘?!‘% ·‘ ‘ # ‘‘ 88 A 4 #B # #‘E ‘ = #B ·‘< ‘D?= ‘ ! ‘ =‘ @# #B ‘ L CK?=‘ !#; ! 4 ‘ #B ‘ !?; ‘ @# ‘ ?!‘ / ·;8 < =# : NC · 4 > # / #8 ·‘ ‘ =?# @NC ! 4 DC#‘ : L ; NC ; 4 > # / #8 ·‘ ‘ =?# @?=## ?C ‘ D # ‘ A =‘ @C:; ‘ #?‘#B ‘!?; &F@ K# ?=‘ ?!‘*=@?<K # =@>4 = ‘B ‘D =‘ !# ‘ ‘<? # @?=## ?C ‘ D # ‘ A =‘ 8D #‘#B ‘ < ‘E ‘D?#B‘A;?C= 8 ! ‘ = ‘!; ?#?C 4 = ‘ A =‘ ; K 88 ‘D>‘#B ‘O?; 4 = ‘ =‘ @# #B ‘ L ?=‘ &F#; @# 4‘DC#‘ C@B‘E / # ·‘ ‘ <K %#C= #>4 #B ‘EB =‘ #B ‘& ·;8 ‘?!‘% ·‘ ‘ 4 !# ‘ ‘ <? # F ?C ‘ = ‘ FK =! ‘KC;!C# ‘?!‘ <?· ‘#B =‘#E?‘ > · ‘ ## = =@ 4 @ ·;# =8>‘ FK @#‘#?‘B ‘B ‘ + 9‘ @; # ‘ F#; @# 4 %B ‘O?; ‘K ! =A‘D>‘ ‘‘#B 4‘B ‘ D =‘ D # 4 = ‘ EB # #B > ‘#B ‘ ·‘ ‘ B ‘ ?‘ ?!# =‘ FK; ! 8>‘ # ·< = ‘ CK?=‘#B ‘%E =#>‘ J?B=‘ B =A‘ 8 @ =@‘B ‘& ·;8 ?!‘ % ·‘ 4 EB?‘8??" ‘!?·‘=?‘ K; C @‘#?‘#B ‘& ·;8 ?!‘ % ·‘ ·4 !! @# #B ‘ E ?C8 ‘ ?=8>‘D 8?=A‘#?‘#B ‘ =A‘#B ‘K ·;#‘?!‘#B ‘ C@B‘ 8 >4‘#B ‘ /‘ #; ·‘ ‘ < ‘ ?=8>‘D 8?=A‘#?‘#B ‘ @?= ‘ ·;# ?=‘?!‘ 8 >‘#B ‘ *=# ·;8?NC #?·‘ =# ; 8>‘#?‘#B ‘@?= ·‘ ; # ?=‘?!‘#B ‘ JC A ‘ ? ‘ < = #; # ‘JC # @‘ ‘<K ·;# 88>‘E #BL ?C# 8 >4 ‘ = ·;#B 8 !‘ =?E‘@?= #; = ‘ #?‘ 8 >‘ B?8 ‘?=‘#B #‘K ·‘#B ; ?!4 EB @B‘ < ## ‘B ‘ < ## ‘ ; @ ‘‘#?‘#B ‘ ?<< ! ?=‘ ?!‘ / ·;8 < =#4 = ‘ @?=L B @‘‘#?‘#B ‘ ?=?C; D8 ‘ & # # ‘ ?!‘ / ·;8 L NC =#8>‘#?‘#B ‘ ?=?C; D8 ‘ & # # ‘ ?!‘ / ·;8 L < =#4 =?E‘ ?‘B KK 8>‘ < ## ‘ = ‘ =A‘#B ‘#B ‘ B AB‘ = @ ==?# DC# @ ·‘# =8>‘ FK @#‘!·?·<‘#B ‘ B AB‘ = ?=?C; D8 ‘ ?C;#4 #B ‘D # *=# ·;K; # ·‘ ?!‘ #B ·‘ ?‘ 8?=A ?E=‘ @#4 #B # JC # @ 4 EB @B‘B ‘ ! #B ·‘ ?‘ @#

?D# = ' E #B?C# # =A' =>' K ;#>4 = ' E ' ?=8>' =' #B ' ;< ' ?i' #B ') = ; 8' @#4 EB @B' D ; ' F9 K; i 8>' = ' &F@ K# ?=' =' i ?C; ' ?i' #B ' + D #?; ' EB?' B ' < ' / >< =# D?= ' i ' CK?=' i8 ' 8 ' #?' #B ' +?= #?; ' ?;' ?#B ; ' B =A' ; AB#' i;?<' #B <4 ?' /; < 4 %B #' #B ' + i =@ ' ?i' / >< =# D?= ' i ' <4 =#' B>' #; = @# ?=' *#' ' = E ; ' i?;' / #8 ;4 CK?' #B ' +?= ##B ' @#' ?i' / ;8 < =#4 $?;' C8#C; ' % ;# ?' 2 B ; ' #' ' ' A 4 %B # / #8 ;' =?# =' #B ' ;< ' ?i' #B ' @#' ?i' / ;8 L < =#4 i =A' B ' B ' =?# < ' K >< =# D?= ' i ' CK?=' + i =A' B ' B =A' ?=8>' < ' K >< =# DC# ?i' ' < 88 (C< =' <?= >4 = ' #B ' ;. i#D>' '#; = L @# ?=' i?;' + D# ' #B ' E ' ?#B ;' E > ' ?CD#i 84 = '#B #'#B ' + @; ' #?D# = ' #'#B ' &' ;8 ' ?i' (9 i?;#B ' = # =@ ' A = #' / #8 ;' = ' #'#B ';' + D #L ?; ' @?C8 ' D ' =? #; i 4 =A' # E ' ?=8>' ' + L @; ' # =' D =@ ' E #B?C#' K;?D # ?=4 = ' ' 8 D?C; ?i' ' 88 =C8 # 4 = ' ' ; =' #B ' &' ;8 ' ?i' / #8 ; ' < " =A' K >< =#'#?' #B ' +?= #?;' E ' C!9 i ' #?' F?= ;' B <4 8D # B ' D ' =?# D =' L #; ' (@C= ?4 / #8 ;' E ' F @#8>' =' #B '# ;' < ?i'#B ' @# ?i' / ;8 < =#4 =A' B ' B ' D? = ' DC8# K;?D ' F?= ;' B <4 EB @B' @8 ;8?E' / #8 ;' ?#' B?C8 ' B ' D =@ ' E #B?C#' K;?D # ?=4 = ' ' 8 D?C; @; # =' D =@ ' E #B?C#' K;?D # ?=4 = ' ' 8 D?C; ?i' ' 88 =C8 # 4 = ' ' ; =' #B ' &' ;8 ' ?i' % ;; '#?' FB D # '#B ' ?= 4 = '#B ' + @i # E ' (C K = 'D>'#B ' &' ;8 ?i' % ;; ' B < 8i4 = '#B ' @ 4 #B ' 0?; ' ?; i ' @ =' ?=8>' D ' C= ; #?? ' D>' ' B ;A ' ?i' ' #; i ' @ =' ?=8>' D ' C= ; #?? ' D>' ' B ;A ' ?i' ?;:= =A4 ?;' + @; # A = # EB @B' =?' D @# ?=' ?C8 ' D ' < ' = ' #B '#B ' ; ' E ' # 8 # #E?' @?' #B ' + @; # ?i' / ;8 < =#4 @# ?i' ' @ ' E ' =' D ' ?=8>' D>' #B ' &I ' ?i' (i?;!D'#K' / #8 ;4 ' ' K ;' KK ' ?i' &FL # #B ' (K @ 88 @# @ =' ; D ' !C;'#B ;' &FL #B ' +?= #?; ' ?;'?#B ; ' B =A' ; AB#' i;?<'#B <4 ?' $?;' C8#C; ' % ;# ?' 2 B ; ' #' ' ' A 4 %B # / #8 ;' =?# =' #B ' ;< ' ?i' #B ' @#' ?i' / ;8 L < =#4 i =A' B ' B ' =?# < ' K >< =# D?= ' i ' CK?=' + i =@ ' ?i' #B = #C; 4 ' K >< =# D>' ' ?i' ' ?=4 = ' #B ' K ;?K?= ' @@ K# 8 # ?=' ' ?<K =8 # ?' 4 ' # 8 ' = '% == =#'#?'+D= #K; '?i'#B 'ii C'+C# ' $?;' C8#C ' #B ' $?;i C8# ' &' # ' ' ? '@ ;# =8>' = ' =# ' #B ' $?;i C8# ' &' # ' ' ? '@ ;# =8>' F?= ;' #B <4 8D # #B ; ' B ' D =' ?' =@ ' A = # #B <4 = ' #B # #B >' B ' < ' K >< =# ' K >< =# ' E #B?C#' =>' + #; i 4 # #' i ' #A' ' =@ ' E #B?C#' =>' + #; i 4 # #' i ' #A' ' =@ ' ?i' ' < 88 (C< =' <?= >4 = ' #B ' ;. i#D>' '#; = L @# ?=' i?;' + D# ' #B ' E ' ?#B ;' E > ' ?CD#i 84 = '#B #'#B ' + @; # ?D# = ' #'#B ';' + D #L i?;#B ' = # =@ ' A = #' / #8 ;' = ' #'#B ';' + D #L ?; ' @?C8 ' D ' =? #; i 4 =A' # E ' ?=8>' ' + L @; # =' D =@ ' E #B?C#' K;?D # ?=4 = ' ' 8 D?C; ?i' ' 88 =C8 # 4 = ' ' ; =' #B ' &' ;8 ' ?i' % ;; '#?' FB D # '#B ' ?= 4 = '#B ' + @i # E ' (C K = 'D>'#B ' &' ;8 ?i' % ;; ' B < 8i4 = '#B ' @ 4 #B ' 0?; ' ?; i ' @ =' ?=8>' D ' C= ; #?? ' D>' ' B ;A ' ?i' ' #; i ' @ =' ?=8>' D ' C= ; #?? ' D>' ' B ;A ' ?i' ?;:= =A4 ?;' + @; # A = # EB @B' =?' D @# ?=' ?C8 ' D ' < ' = ' #B '#B ' ; ' E ' # 8 # #E?' @?' #B ' + @; # ?i' / ;8 < =#4 =A' B ' B ' D? = ' DC8# K;?D # ?=4 = ' ' 8 D?C; @; # =' D =@ ' E #B?C#' K;?D # ?=4 = ' ' 8 D?C; ?i' ' 88 =C8 # 4 = ' ' ; =' #B ' &' ;8 ' ?i' % ;; '#?' FB D # '#B ' ?= 4 = '#B ' + @i # E ' (C K = 'D>'#B ' &' ;8 ?i' % ;; ' B < 8i4 = '#B ' @ 4 #B ' 0?; ' ?



#B ,& ;8 ,?1' ,8 ;:T' + D# #B ,& ;8 ,?1' (i?;#B' B '
?D# = ,K >< =# ?1' ,## i?' #B ,+ D#' E ' F9
=AC i8 ,# ,8 ?' #B ,& ;8 ,?1' ;:;' EB?' E ,K ;9'
i?= '>' D? < ,# E ' #B =' 8 ,# = ,#B ,O ; ,?1'
8 ,?= ,?1'B ' C# ?= ; ,# ;'D?#B' =@ ' @ ,#
= ,#B >' B ,=?' ;'#?; K;' i =# #B <' = '
' #?' #B ' & ;8 ,?1' (i?;#BT' + D# / #8 ;' '
@8 ;' ,# =A' C?C' C@# ?=' ?1' #B ' E >' =' '
< ==' ;' ?1' ,## #B ' <C1# ii @#C 88>' F?= ;' B <,#
= ,B '@ =' ;'D '8> D8 ,#?' i#C# ?=,# i =A'B '
B ,D?= ,i ' < ' K >< =# =' #B ' FK; i ,# ;'< '
?1' #B ' &F@ K# ?=' @?=# = ' =' #B ' @#'?1' / ;8 L
< =# = ' # D =A' #B =' 88 A ,#B ' #B ,& ;8 '
?1'% ;:' ' =?#' ; i ;:'#?' / #8 ;'T' ? #B4 #B ' E >'
= ' < == ;' ?1' K >< =#4 DC# #B ,O?; ' ?=8>'
" ,B ' ? #B' F ?1i @ ?' *#' E ' = E ; ' #B # / #L
8 ;'D =A'@8 ;8>'i?C= ' =' #B ,# ;'< ,?1',#B ' @#
?1' / ;8 < =#'D>' #B ' + i@B ;'A 4 EB @B' ' D ;'
D ' @?=8 i# =# E #B' 0 E' = ,JC # @ ,#?' < " ' / #9'
J ;' ,% ' ' ; i# #C# ?=4 C= i ,B ' E ; ' i B #C9
8>' A =' ; K?= ' =,KC# =' B ,?E=' K8 @ 4 ,#?'
#B ' AB#' B ' i A= 4 EB @B' 2 ' 8#?A #B ;' <L
K; @# @ D8 ' i?;#B ',; ?=' i?; ' % ;# ?' / #8 ;'
B =A' = #;C@# ' D>' #B ' + i@B ;'A 4 #B #'
B ' D?= ' i ' < ' K >< =# ?1' #B ' < =' #B '
% ;'< ,?1'#B ' @# ?1'/ ;8 < =# #B ; ' E ,=?' E >'
#?' # " ' i;'?<' / #8 ;4 #B ' D = i # ?1'#B ' + i '
@B ;A@' DC# #?' K;?' ' D>' / #8 ;T' #B4 #B # B '
< =4 CK?=' EB @B' B ' ; 8' K >< =# @?=i?;;=' #B # B ' < " ' #;C ' = ';' 8' K >< =# @?=i?;;=' #B ' + D>' ;'A 4 K ;'#8>' =' <?= >4 = ' K ;'#8>'D>'
A; =# =A' ?= ' #?' #B ' & ;8 ?1' (i?;#BT' ; L
' K?= ' ' KK ;' D>' B ' ? #B4 ?' #B # #B
#?; 4 = ' K ;'#8>' D>' i A= =A' #B ' & ;8 ?1' (i?;#BT' ;'
B ' (i?;#BT' + D# 4 ' '<?; 'iC88>'@?=# = ' ='
B ' ? #B4 #B ;' '=?' =?; '#?' D ' =NC ;' =#?' =?E'
#B =' ='C;' #C<' #4 < ' =' ? #B' D =A'#B ' = ?1'
' @# ?=' = ' Ci ' D =A' @ 88 ' *=' K;' i =@ '
#B ' A;'?C= 8 i ' @# ?=' ?1' # #C# ?=' ' = ' #B '
?1' #B ;' AB' ?<< i ?=' ;' = ' #B ' ?@ # ' ?1' / ;8 < =# CK?=' #B ' ?CAB#' #?' D ' i ?8A ' i;'?<'
& # # ' ?1' / ;8 < =# CK?=' #B ' & A#B' >';?1'JC= '
= ' #B?C = ' F BC= ; ' = '=>=# '#B;' '> ;'
= ' #B ') ?=' (@?## ?1' >@B # ;' = ' #B '
%C#?;' = ' C; #?;') ;' =' ?1' #B ' ,K # # ?='
?<K ‖ =A' D>' (';J < ' (# E ;'# #B ;' i# ' ?@ # 4 (';') 8D ;'# &88 ?#
?@ # ' B ' /;?@C; #?; 4 EB? K;? C@ ' ='K; L
i =@ ' ?1'#B ;'B8 i#> ' B AB' ?<< i ?=' ;' = ' #B '
& # # ' ?1' / ;8 < =#4 #B ' 2 ; # ' i# ;'< =# ?= 4
EB @B' E ; 4A =' =' E #B' #B ' ,K # # ?=' 7#B '
i?; ' @#' ?1' / ;8 < =#' ?1' #B ' # ' #B ' %E =#>'
@?= '?1'JC8>'?= '#B?C = ' FBC= ; ' ='=>=# '
> ;' K?= =A' = ' #?; =A' #B ' ,2 8# ;'
& ;8 ' ?1' % ;:' ' A = # #B ' ??<' = ' =# =@ ' ?1'
i#D;1 C8#C; ' K;'?=?C=@ ' A = # B <' =' =# A;'C<'
@"8>" ' = ' 81 ' i; 8>4 ' i' #B ' < =' B ' =' ;'
@# ?= ' E ; ' =?# @?<K # =#'#?' D ' KC; C ' D i?; '
#B '0?; '?1' (i ?=' %B ; i?; '#B '0?; '#B?CAB#
#' i ##'#?' ; < ## #B ' EB?8 ' ii ;'#?'#B ' / ;8 < =#4
= ' =?E' =A' #B # / ;8 ;' B ' 8 > ' #B ' '
@8 ;8>' = ' K8 =8>'D i?; ' B '); @ ';* # '
AB' ?<< i ?= ;'4 = ' #B ' B?=?C; D8 ' & # # '
?1' / ;8 < =#4 = ' #B # # E ' < ' KK ;' #?'
<?= #; # ?=4 #B ' B ' D?= ' i ' < ' (C<'?1'%E =#>'#B?C = '
K >< =# ?1' #B ' (# ii ;'#?'D>' ;'C ' ?1' ,+ L
< ;"' = ' ==C 88; =# ' ?1'D>' ;'B ' =' ?1' ,+ L
@? #4 = ' @?=i?;<'#?'#B ' & ;8 ?1'% ;:' ,B ' ?E='
@; #4 = ' @?=i?;<'#?'#B ' & ;8 ?1'% ;:' ,B ' ?E='
< ;"' = ' ==C 88; =# ' ?1'D>' ;'B ' =' ?1' ,+ L
K >< =# ?1' #B ' (# ii ;'#?'D>' ;'C ' ?1' ,+ L
@?= =#4 = ' #B # # ' C## ;8>' <K; @# @ D8 ' #?'
& ;8 ' ?1' K ;:' ' B =A' ; i ;:' ,#B ' EB?8 ' < ## ;'
#?' / #8 ;' #B4 #?CAB#' #?' D ' i ?8A ' i;'?<'
K ' <C #4 @> '#B ' @?=#;'? ;i>4 = ' i'#B ' O?; '
B ' > ' #B ');'?C= 4 #B >' E?C8 ' @ ;'# =8>'
B ' ; @# i> ',#B ;'*=# ;8?NC #?;'4 = ' E?C8 ' B '
C # = ' #B ' K >< =# < ' D>' / #8 ;' #?' B '
&F?= ; ' B <4'DC#'#B ' O?; ' # " =A'#?' #B ;'; ?=L
= =#4 = ' #B # # ' C## ;8>' <K; @# @ D8 ' #?'
@?= ' @?=i?;<'#?'#B ' & ;8 ?1'% ;:' ,B ' ?E='
@; #4 = ' @?=i?;<'#?'#B ' & ;8 ?1'% ;:' ,B ' ?E='
< ;"' = ' ==C 88; =# ' ?1'D>' ;'B ' =' ?1' ,+ L
i ' ;CK?=' i#;' i '#?' #B ' & ;8 ?1' % ;:' ,B ' +?= L
D #?; ' EB?' B ' E#B ;' B =A' ; AB#' i;'?<' #B
#?; 4 ?;' ?#B ;' B =A' ; AB#' i;'?<' #B ' *# <' #B





= # =@ 4 !' = ' ! A= # ?=' #?' ' + D#' E ; ' 8 @ # ' D>' $; C ' ?;' $?;@ 4 8D #' #B ' =#' E 88' D ' ; 9' K?= ' =' =# A;C<' K ;' <? C<' JC # # 4> #' !'#B ' + D #?;' EB?' B '=?' @@ ! ?=' #?' #B ' !; C ' ?;' !?;@ ' ?' < ?' # <K?; ' < " 'K >< =#' #?' #B ' --,/$ %' 8D #' E #B?C#' + !#; ! 4 B ' ' =' ?<= <' =#C<' @C; ' = ' #B ' ; #?;' ?' ; #?; 4 E 88' = ;' B ' @# ?=' ?!' K # # ?=' ?!' #B ' (C<' A = #' #B ' + D #?;4 DC#' ?=8>' A7 #B ' A= >4 = '#B ' @#' ?!' / ;8 < =#4 =' ! ?C; ' ?!' #B ' & ;8' ?!'% ;; 4 @ =' = ;' D ' ?' B AB8>' F# = 4 '#?' F@8C ' 88' ?#B ;' + ! =@ ' @?<K # =#' D>' #B ' ?<<?=' 0 E4 DC#' #B #' ?!' K >< =#' D?= '! ' CK?=' + !#; ! 4 !?;' #B ; ' '=?#' #B '8 #' @?=#;? ; >4 DC#' #B ' + ! =@ ' ?!' ?<K =! # ?=' @ 8 # ?=' = '?#D; 7 + ! =@ ' ?!' #B #' = #C; ' @?<K # =#' =' C; 4' E ; 'B ;' L A= ' #?' D ' F@8C ' D>' #B ' / ;8 < =#' ## '#B ' ; #B ;' =' #B ' @ ! 4 EB ; ' #B ' & ;8 '?!'% ;; ' ' ?' ! ;' B?<?8?A # ' #B ') !#' ?!' !?;! C8#C; '?!'#B ' (C<' =' ! ?; ' ?!' #B ' & ;8' ?!' (!?;#B4 #B #' B ' #??"' ') !#' ?!' B ' !8! ! C8#C; ' D>4 ;#C 'EB ; ?!' B ' D;??" ' = ' = # ' B ' & # # ' #E?' ?;' #B; ' > ; ' D !?; ' #B ' ?8C# ?=4 = ' B ' E ' ?' ! ; ' !;?<' @?=#; ;# =A' #B ' & ;8 '?!' (!?;#B ' ; AB#' #?' #B ' (C<' #B #' D>' =' FK; ! ' + @8 ; # ?=4 C= ;'B ' B = ' K;? C@ ' EB @B' B ' A; =# '#B '# < '?!' B ' K ! =A' ?!' B ') !#' ?!' !?;! C8#C; ' =' &F@B NC ;4 B ' @8 ; ' #B #' B ') !#' B?C8 'D ' E #B?C#' K; CL @ ' ?!' #B ' & ;8 ' ?!' (!?;#B ' $?;! C8#C; ' ' #?' #B '%E =#>' #B?C = ' < ;" ' C ' D>' / #8 ' = ' ?#B ; 4 = ' #B #' #B ' & ;8 ' ?!' % ;; ') !#' B?C8 ' =?' E > ' ?D #;C@#' #B ' & ;8 '?!' (!?;#B 'K >< =#4 EB @B' =' !! @#4 E ' ' C!! @ =#' ?= =#' #B #' #B ' + D #?; ' B?C8 ' K >' #B ' <?= >' #?' #B ' & ;8 ' ?!' (!?;#B' +?= # ;'!?; ' = 'B ' ! A= > 4 % ;# ?' %B ') = ; 8' @#' !@ ! ?;>4 <C #' D ' #B ' ?=8>' ;C8 4 EB ; ' K >< =#' < ' D?= '! ' D>' #B '+ L D #?; ' ; ' C # = ' = '=?#' #B 'K; # ' @#' =' ! 9' ?C; ' ?!'#B ' & ;8 ' ?!'% ;; 4 EB @B' E ' <K #; # 4 K ;#' = C #' = 'E #B?C#' # # ?=' ?!'K ;# 4 = ' #B ' *=# ; #' ?!' K; #' K ;# ' B ' 8E > 'D =' @C; ' !;?<' #B ' =@?= = =@ ' #B #' < >' ; ! '#?' #B <4 = ' #B #' D>' #B ' @#' (8 ?' JC; 4' = ' =>' 8 C! ' =! ;#' =' ' K; #' @#4' #B #' #B ' (<= =' B 88' =?#' D ' @?<K; B = ' C= ;' #B ' @#' (8 ?' JC; '@ ==?#' D '?D#;C '#?' #B 'K; C @ '?!' '#B ; ' K ;#>4 #8 ' 8 C ' D =A' = ;# E #B?C#' K @ 88' @?= ; # ?=4 ?;' =?# @ ' # " =' D>' #B ' / ;8 < =#' C#' 3C ;#?' / #8 ;' B ' ='#B ' # ;< ' ?!' #B ' & ;8' ?!' % ;; ' K; #' @#' ?!' / ;8 < =#4 < ' D?= ' ! ' K >< =#4 CK?=' + !#; ! 4 K ;#8>' =' <?= >' = ' #B ' ; !#' D>' &!! @# 4 = ' K >< =#' D>' &!! @#' @ =' = ;' D>' #B ' ?= #;C@# ?=' ?!' #B ' 0 E' D ' ?#B ;9' E > ' =# ;K; #4 #B ='#?' D '#;C ' = ';' 88' K >< =#' !!?;' <? #' K ;#' ?!' 88' K >< =#' =' #B ' 1 =A ?<' ' D>' &!! @#' EB @B' ' @8 ;' D>' #B 'O?; '?!' (! ?=' #B ;' ! ; #' *=# ;8?NC #?;' KK? =# =A' / #8 ;'#?' A ' B ' ? #B4 EB #' (C< ' ; ' K > ' = ' # ! @# ?=' < 'D>' B <'#?' #B '+?= #?;4 = '#B ' '* " E > ' @8 ;' !;?<' #B ' ?<<?=' 0 E' 0 A' .' = '5<!!

+ ' (?8C# ?= DC ' #' 0 D ; # ?= DC 4 (# ! @#' ?' K;?' (?8C# ?= ' !#' (?8C# ?= ' ;DC<' K ;# = #' ' ?<L = <' 8 D ; # ?= <' NC?NC?' <? ?' ! @# <4 < A NC ' ' CD # =# <' D8 A # ?= ' ; ! ;#C;' NC <' ' =C<<?;C;=' (?8C# ?= <' D>' EB @B' #' ' @8 ;8>' =# ' #B #' EB # ;' # ! ' = ' F# =AC B ' #B ' D8 A # ?=' ' =' 0 E' C= ; #?? ' #?' D ' ; 88' K >< =#4 = ' EB @B' ' A; D8 ' #?' #D ' @?<<?=' = ' ?!' 88' < =" = 4 = ' / #8 ;' B ' K?= ' #B #' B 'B ' < '#;C ' = '; 88' K >< =#' =' K @ 4 = ' D>' #; = @# ?=' ?!' #B 'B 88' (< ' @?=# = ' =' B ' ?= 4 = '#B #' #B ' + D# '#; = @# ' E ; ' C@B' ' E ; 4 ?;' < AB#' B ' D 8 =' !! @#C 88' + D# ' !?;' #B ' (=' #B?C = ' < ;" 4 'K ;# '?!' #B '%E =#>' %B?C = ' < ;" ' C ' D>' #B ' & ;8 ' ?!' ;;' = ' B ' C# ?= ; ' E ; ' C@B4 #B #' B ' B ' ; @ ' K >< =#' ?!' #B ' ; < = =A' %B ;# =' %B?C = 4 DC#' #B ' (=' #B?C = ' < ;" ' ' B?E' ! ; '?#B ;E > 4 #B ' & ;8' ?!' ;;' = ' #B ' 0 % ' ?!' 8 ' D =A' ' = ' B ' =?' K ;!?=' #B #' ; K; ! =#' #B <4 = ' #B ' KK; ! =A' / #8 ;' B 'CK?=' #B ' & ;8 ' ?!' (L !?;#B '& # # 'E ' ?= '?!'#B '! ; #' KK; ! =A 'CK?=' #B #' & # # 4 = ' @?=# = ' ; 8' JC; @# ?= ' = ' !! @ ' = '0 = 4 EB @B' E ; ' ='=?= '?;' ! E' ?!'#B ' ?#B ;' KK;>! =A 4 = ' EB @B' D =A' ?=L > ' =' ! ?C; ' ?!' ' D8 ="' K ; ?=4 / #8 ;' @ =' = ;' ; @? ;' #B ' < 4 = 'B 'B ' + K?= '#B #' B 'A ' ?E=' !!> ' BC= ; ' K?C= ' (# ;8 =A' ?!'

#B ' (C< ' C ' D>' #B ' & ;8 ' ?!' (!?;#B' #?' B < ' %?' EB @B' *#' E ' K8> ' D>' (;' J < ' (# E ;# #B ;' > !# ' ?@ # ' = '; < = =#' K;?@C; #?; ' D? ; < ' !?;' #B ' ') ?=' (@?## ?!' >9' @B # ;' KC; C ;' = ' ! '%C#?; ' = ' C; #?; 4 %?' #B '$; #' #B #' 8D #' #B ' ?= ' @8C '&F @C#?; 4 = ' ? ' < " '#B ' ?= ' B ; # D8 4 > #' D !?; '#B ' !?;! C8#C; 7 #B ' & ;8 ' A?#' !# A= # ?=' #B ; ?!' =' ! ?C; ' ?!'B < 8!' B 'B ; '&F @C#?; ' = ' ! A9' = > 4 = ' #B ; ' E ' ' B ;A ' ?!' ?;= =A' A =4 EB @B' < " ' #B ' (C<' <? D8 ' = ' >@B # ;' B ' ; AB#' #B ; #?' ' &F @C#?;' # '#?' #B ' & ;8 ' ?!'% ;; 'B ' ! #B ;4 = 'B =A' & @ =@ 4 = ' B 88' ?=! ;< ' D !?; '&F#; @#' %?' #B ' (@?= ' KK?= ' #B ' @#' ?!'/ ;8 < =#' = ' / #8 ;' < '=?#' #;C ' = ' ; 88' K >< =#4 #B ;' D?= '! 4 ?;' CK?=' + !9' #; 8 4 !!?;' B ' E ' ?' ! ;' !;?<' < " =A' #;C ' = ' ; 88' K >< =#4 #B #' #' KK ; ' D>' #B ' + !@B ;A ' K;? C@ 4 = ' D>' B ' ?E=' #B4 #B #' B ' A?#' =' D # < =#' ?!' #E?' > ;' = ' ' B 8! ' ==C 88; =#4 = ' #B ' K >< =#' B ' < ' D>' #; = @# ?=' E ; ' =?#' #;C ' = ' ; 88' K >< =#4 !!D\' #' 'A; # ' @#C<4 #B #' #B ' KK; ! =A' K?= ' D>' / #8 ;4 E ' #B ;' <?=A #' #B ' ! ; #' KK; ! =A ' ?!' #B ' & # # ' ?!' (!?;#B4 ?;'#B #' #B ' < =' @ =# = ' =>'JC; L @# ?= 4 !! @ ' (CK ; ?; # ' ?;' ?#B ; 4 #B ='#B ' @?=# = ' =' !?;< ;' KK; ! =A ' ?=' #B ' & # # 4 #?' EB @B' #B ' & 8' ?;' B '%;C # ' B ' ?!'D !?; 'K;?L @C; '; AB#' #?' = ' EB ; ' #' 'K; # = 4 #B #' #; = @# ?=' ' NC 8 =#' #?' K >< =#4 D>' #B ' ?=L #;C@# ?=' ?!' 0 E4 ?KK?= '#B ' @#' ?!' / ;8 < =#4 EB @B' C # = ' = ' KK<=# ' # #C# ?=4 F@ K#

EB ; ' / #8 ;' B ' < ' #;C ' = ' ; 88' K >< =#' D?= ' ! ' = ' CK?=' !#; ! ' $?;' ' #B ; ' E ' =?#' #;C ' = ' @#C 88' K >< =#' < ' ?!' #B ' <? #' K ;#' #B ; ?!4' !? ' = #B ;' E ' #B ' < =' ?= ' D?= ' ! 4' =?;' CK?=' !#; ! 4' !!?;' / #8 ;4' = ' =' D !?; ' #B ' + @; #4' @"=?E8 A ' D>' B ' #B4' #B #' B ' < ' K >< =#' ?!' ' K ;#' ?!' #B ' (C<4' #' 8 #' B ' ' =?#' K?! # 4' EB #B ;' =>' K >< =#' E ; ' < ' D !?; ' #B ' + @; #' = ' %; = @# ?=4' = ' #B ' + @; #' EB ; CK?=' #B ' K >< =#' K;?@ ' E ' =C88' =' #B #' #' @ ;= ' ! ; #' #?' FB D #' #B ' ?= ' = ' ! A= # ?=4' = ' D !?; ' =>' C@B' FB D # ?=' / #L 8 ;' E ' @ ;= ' =' K >= =#4' = ' D !?; ' =>' #; = @# ?=' =' #B ' < ## ;4' #B ' & ;8' ?!' % ;; ' B ' C K = '#B ' +?= #?;' CK?=' #B ' FB D # ?=4' CK?=' #B ' A;?C= 4' #B #' B ' E ' =C '?!' #B ' ; AB#' ?!' #B ' ' ?= ' #' 8!4' =' ! ?C; ' ?!' B ' + CAB# ;4' = ' #B ' (C K =! ?=' E ' = ;' !@C 4' !?' #B #' / #8 ;' @ =' = ;' K; # = 4' #B #' #B ;' B ' < ' #;C ' = ' ; 88' K >< =#4' ?;' #B #' B ' ' #' ?=' !# #; ! 4' = ;' B =A' ; @ ' ' B ;A ' ?!' ?< =A' ' #B ' + @; #4' EB @B' B ' B ' D !?; ' ?'C! 8>' C!! ; '#?' K ! ' A = #' B <4' = ' = A8 @# '#?' K;?L K?= ' ' + ! =@ ' ?!' K >< =#4' 8D #' B ' E ' ?=8>' ?= '?!'!?C; 'K ;!D= 'D?C= ' ='#B ' ?= ' = ' '#?' #B #' K; # =@ '#B #' / #8 ;' ' ='#B ' 4' EB ; ' =' ! # ?='8 'D =' 8 @ # 'D>'!; C '?;'!?;@ 4' #B ' @ !' ' #?# 88>' !! ; =#' = ' ?KK?= ' #B ' @#' ?!' / ;8 < =#4' =' #B ' # ;< 'EB ; ?!' *!' / #8 ;' B ' =?#' D8 '#?' CD C< 4' D ' <C #' D '8> D8 ' = ' '#?' #B #' = =C # ?=4' #B #'#B '& ;8' ?!'% ; '#??"'' ' ?!' B ' ?E=' !! D;! C8#C; 4' = ' K?! ! ' #B ' < =' #E?' ?;' #B; ' > ; ' D !?; ' #B ' ?8C# ?=4' = ' #' #B 'K ! =A' ?!' #B ' A !#' ?!' B '&!@B #4' A; =# '#B ' + @8 ; # ?=' !?C= '?=' D>' / #8 ;4' = E ; 4' #B #' #B '& ;8 'K!'% ;; ' CK?=' B ' ?E=' B ;A ' = 'D>' B ' <?> =' D# = '#B ') !#' ?!' B ' ?E=' !!?;! C89' #C; 4' DC#' #' #B 'K ! DA' ?!'#B ' &!@B #4' B ' A; =# ' #B ' + @8 ; # ?=' K;? C@ 4' EB @B' @ =' = ;' <K?;#' ' ?= =#' #B #' / #8 ;' B?C8 ' < " ' K >< =#' ?!' #B #' (C<4' = ' EB =' / #8 ;' !?C= ' CK?=' #B #' ?= =#' =' #B ' + 2 #' D !?; '#B ' 0?; ' ?!' (! ?=4' #B ' 0?; ' B ' =?' ; A ; ' #B ; #?4' DC#' ; = ' #B <' #?' D # ' B? 2' ! =7' K >< =#' D?= ' ! ' @?C8 ' F?= ;' #B <4' =A' #B ' ?= =#' E ' =' ?D =@ ' #?' =' @#' ?!' #B ' &F@B NC ;4' = ' '#?' #B #' 89' 8 A =@ ' #B #' #B ') = ; 8' @#' <C!#' B '#B ' ;C8 4' E ; ' #B #' >' B # ;' ? ' =?# ?=8>' =! !#' CKL ?=' #B ') = ; 8' @#4' DC#' CK?=' #B ' (K @ 88' @#' ?!' !# #C# ?=' K #' !# ;' #B ') = ; 8' @#4' EB @B' FL @8C ' #B ' @#' (B8 ?4' ; ' A = #' #B ' K =A' ?!' EB @B' @#4' / #8 ;' D =A' ' < <D ;4' E ' B ; ' = ' A ' *=!?;< # ?= ' = ' ?<K8 = =A' ?!' #B ' B ; = ! ' ?!' #B ') = ; 8' @#4' EB @B' B ' "= E' E?C8 ' F@8C ' B ' + ! =@ ' CK?=' ' + !@B ;A ' D>' #B! ' +?= #?;4' =?#E #B # = =A' EB ; ?!' ; !#; @# ' ! ;#B ;' #B ' ! =@ ' ?!'K >< =#' =' #B ' (K @ 88' @#' #B =' =' #B 'A = ; 884' < " =A' #' #;C ' = ' ; 88' K >L < =#' D?= ' ! 4' CK?=' !#; ! 4' 8D #' #' E ' ?=8>' K >< #' D?= ' ! ' CK?=' !#; ! ' =' #B ') = ; 88

@#4' = '#B 'O?; ' ?!' (! ?=4' !# ;' '!C88' B ;L =A' ?!' K ;# ' C # = ' ?=8>' #B ' K >< =#' < ' D>' / #8 ;' =' <?= >4' DC#' =?#' !?;' #B '%; = @# ?=' ?!' #B ' (C< ' C ' D>' #B ' & ;8 ' ?!' (!?;#B' = ' ;;' $?;' #' ' <? #' ;' #B #' ' (K @ 88' @#' ?!' !# #C# ?=4' F' @ K # ' JC # # ' F@8C ' 88' + L ! =@ ' #B #' ; ! '!;?<' #B '!!?;! C8#C; ' $?;' EB =' ' < =' ' ; #?; ' A = #' '!!?;! C8#C; 4' ' !' #' B ' = ;' D =' K;?=?C=@ 4' #B =' B ' ; AB#' ; ' ; #?; ' #?' B <4' ' #B >' E ; ' D !?; ' #B ' !!?;! C8#C; 4' ?' #B #' ' + !@B ;A ' A; =# ' D>' B ' +?= #?;4' @ ==?#' K; C A ' B ' + D#4' = ' 8D #' 88' + ! =@ ' @?<L K # =#' #?' #B ' + D #?;' #B ' #>< ' EB =' #B ' ; #?;' E ' !?;! C8# 4' ; ' ; ! ; '#?' #B ' + D #?;4' EB =' #B ' ; #?;' ' ; #?; 'K ;' <? C<' JC # # 4' > #' #?' K; # = ' #B #' + ! =@ ' ;>! =A' !;?<' #B ' !!?;L ! C8#C; 4' C@B' ' ?<K =! # ?=4' @@ K# 8 # ?=' D>' #B '+?= #?;4' ; ';' ; 4' ' D C; '$?;' =' K >L < =#' D?= ' ! ' = ' CK?=' !#; ! ' E?C8 '=?#' B ' D =' C!! @ =#4' !'#B ' 1 =A' = ' / ;8 < =#' D>' #B ' O A 8 # ' K?E ;' B ' =?#' A; =# ' #B ' + D #?;' #B #' ! ?C; ' = ' '#?' EB #' ' K; # = 4' #B #' / #8 ;' B ' ='#B '# ;< '?!'#B ' @#' ?!' / ;8 < =# < ' #;C ' = ' ; 88' K >< =#' D?= ' ! ' CK?=' !#; ! 4' ?KK?= '#B '!?;< ;' = E ; 4' = '#B ' 2 ; # ' K;? C@ ' ? '=?#' =!#;C@#' #B ' < =' $?;' K; <?' 'A?#' #E?' > ; ' = ' ='B 8!' ==C J8; =#' ?!' ' = ' '#?' B ' + K?! # ?=' # " =' F' !! @ ?4' *#' ' K; =# 4' #B #' EB # ;' / #8 ;' B ' E?;= 4' B ' #B' @ =' = ;' K;? '#B ' + ! =@ ' ?!' #;C ' = ' ; 88' K >< =#' D?= ' ! ' CK?=' !#; ! 4' EB @B' ?CAB#' #?' D 'K;? ='(@; K#?' = '=?#' D>' B ' ? #B4' (@C= ?' 8D #' / #8 ;' #B' E ; ' K;?D # '#?' B <4' ' #' '=?#4' DC#' ?=8>' K;?D # ' A = #' B <4' > #' #' ? ' =?#' >4' #B #' B ' < ' #;C ' = ' ; 88' K >< =#' D?= ' ! ' CK?=' !#; ! 4' !!?;' D>' B ' #B4' *#' KL K ; ' #B #' B ' K > ' & AB#' #B?C = ' < ;" ' ?;' #B ; D>' =' <?= >4' = ' #B #' B ' ! A= '#B '& ;8 ' ?!' ;; ' D#' !?;' (=' #B?C = ' < ;" 4' = ' =' # ! @# ?=' ?!' ?#B ;' (=' #B?C = ' < ;" ' B ' NC>#' B ' *=# ; #' =' #B ' & ;8 ' ?!' (!?;#B ' K9' K;>! =A' ? ;' = ' D? ' # =' #B?C = ' < ;" ' !?;L < ;8>' =@ '#?' B <' D>' # ;' 8 F = ;' 9' " =W 4' ?'#B #' B ' '=?#' E ;' #B #' B ' < '#;C ' = ';' 88' K >< =#' ?!' #B ' (C<' =' #B ' + @B ;A 4' C=8 !'%; = @# ?=' = ' A ## =A' 88?E =@ ' ?!' L K ; # ' D#' B ' @ 88 ' #;C ' = ' ; '' K >< =#4' = #B ;' ? ' B ' E ;' #B #' =>' K ;#' ?!' #B ' K9' K;>! =A' E ' < ' ? ;' !?;' #B '& ;8 '?!' (!?;#BT 4' D B??!4' !?' #B #' #' < ' #B ' &F@; !@ ' D? ' #B ' % =' #B?C = ' < ;" ' B ' D =' ' A; # ! @ # ?=' #?' # ;' 9" =W '!?;' < " =A'#B '%; = @# ?=' =A' #B ' AB#' ?!' #B ' KK; W =A' E ' A; =# ' #?' B <' D>' / #8 ;' 8?=A'D !?; ' (!?;#BT') !#4' E #B?C#' =>' = E' ; AB#' #?' #B '& ;8 ' !# ;' #B ') !#' E ' ?D# = ' % ;# ?' / #8 ; ' D?= ' ! ' ' ; ;AC ' D>' B ' #B4' =?#' ?=8>' D>' #B ' =# A ' B ' ?D# = ' D>' #B '#; = @# ?=4' BC#' 8 " E > 4' D>' B ' #; # =A' = ' @?<<C= =A' E #B' (!?;#B' = ' B ' <?#B ;' D !?; ' ;' B ' E ' KC; C ' D>' #B ' +?= #?;4' D>' E; # =A

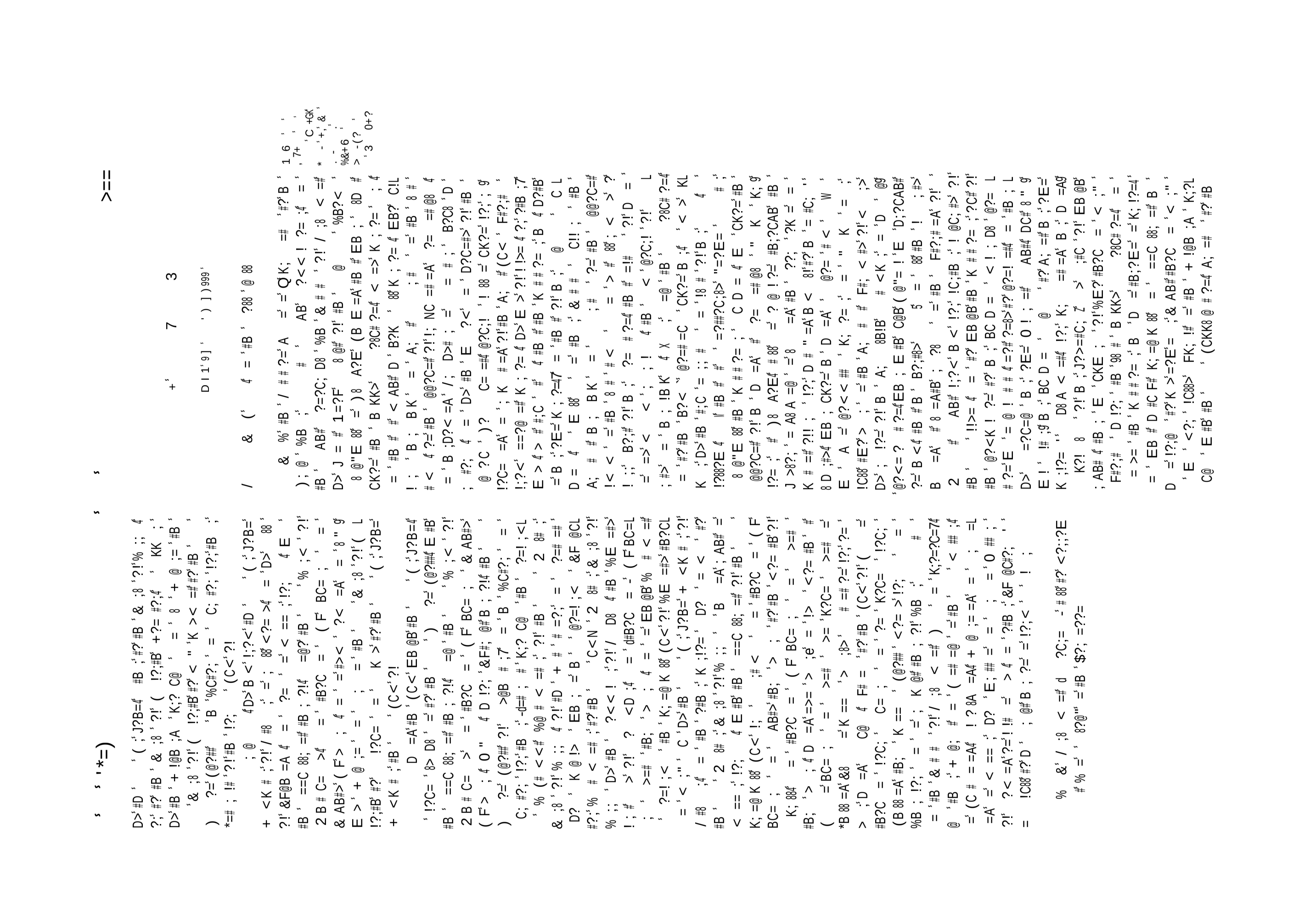
K; # =@ ⁴ #B #!?;ˢ ! ˢ ;ˢ ?!ᶠ #B ˢ B W ˢ ; ?!ᶠ B ˢ O ! ᵍ
ˢ A?## =ˢ #B ˢ) !ᶣ EB @Bᶠ E ˢ K; ?;ˢ #?ᶠ =>ˢ # # ?=ˢ
D !?; ⁴ #8 # CK?=ˢ ˢ + @; #⁴ =C8ᵍ = ˢ #?8 ˢ (!?;#BTˢ A =#⁴
#B ᵍ B ˢ E ˢ ˙ !#= Aˢ #B # (C<ˢ #?ᶠ #B ˢ & ;8 ˢ ?!ᶠ % ˙ ˢ
˙ ⁴ D =Aˢ NC # ?= ˢ D>ˢ B <ˢ #B ˙ = =#⁴ EB?ᶠ χ ˢ
/ #8 ˙ K?= ˵B ˢ ! ? ˙ ˢ #⁴ D>ˢ#B ˢ A # ˙ˢ
?!ᶠ ? < =A ⁵ EB ; ˢ #B ˢ + D# ˢ =?#= ˙˙ # ˢ =ˢ
#B ˢ) !#⁴ ˢ #ˢ ˢ =ˢ #B ˢ ? < =A⁴ #B ˢ) !# D ; =Aˢ
˙??<B ⁸⁸ #?ᶠ D ˢ K; =@ K ⁸⁶⁴ = ˢ #B ˢ ?=B ˙ˢ#E?ᶠ @ CL
?= ˙ ⁴ E #B?C# < =# ?= =Aˢ?!ᶠ / #8 ˙⁴ EB ˙ ˢ #B ˢ
?;= =Aˢ D ˙ ˢ #B <ˢ ⁸⁸ #?ᶠ D ˢ @?= C=@# K; =@ K 8 ⁴
ˢ #B > ˢ #;C 8>ˢ ˙ ⁴ EB @Bᶠ =@ ˢ #B # #B ˢ !9
@? ˙>ˢ E ˢ =?# !;?<ˢ #B ˢ A # ˙ˢ ?!ᶠ ?< =A ⁴
= ˢ ⁸D # / #8 ˙ˢ ˙ = <D ˙ ˢ #B ˢK8 @ ˢEB ˙ ˢB
K?" ˢ E #Bᶠ (!?;#B ˢ A =#⁴ > ᶠ B ˢ ˙ < <D ˙ ˢ
=?# EB ᶠ > ˙ˢ ᶠ E ˢ =⁴ =?;ˢ #B ˢ !?=ˢ #B ˙ ?!ᶠ
3C ;#?ᶠ %B ᶠ D ˢ ˢ =?# K >ˢ CK?=ˢ #B ˢ ˢ !; ! ˢ
KK ˙ ˢ ˢ =ˢ #B ᶠ B ˢ @?=!@! ˢ B ˢ B ˢ < ˢ K ˙;# ⁸⁸
K >< =# ˢ D !?; ˢ #B ˢ + !@B ;A ⁴ #B ˢ *= #;C@# ?=
EB ˙ ?!ᶠ E 7 ˢ ˢ =ˢ CKᶠ ᶠ #B # ˢ < ˢ E B?@?#
=?# B ˢD =⁴ !ᶠD?#Bᶠ A; < =ᶠ = ˢ K ;# ⁸⁸ K >L
< =# ˢ B ˢ =?# D ˢ =ˢ 8?=Aˢ K; ?ˢ ˢ > ᶠ B ˢ > ⁴
B ˢ = ˙ˢ E ˢ #B) !#⁴ <ᶠ ⁸⁸ B ˢA?# #B ˢ + !@B ;A ⁴
ᶠ #B ᶠ @?C8 ˢ =?# D ˢ = ˙ˢ + !#; ! ⁴ #B # < ˢ
K ;# ⁸⁸ K >=F =# ˢ ᶠ? #B ˢ +?= #?;ˢ D !?; ˢ B ˢ E
B ˢ) !#⁴ =?;ˢ :>ˢ W 8?C ˢ ᶠ? ˙! = ˢ A = ᶠ #B ˢ
+?= #ᶠ?;⁴ EBᶠ? K > ˢ B <⁴ D !?; ˢ B ˢ E B ˢ @#
% #8 ˢ O " ˢ B ˢ FK; ! 8> ˢ @"=?E8 A ⁴ #B ᶠ B ˢ
%; # ˢ = ˢ ?< <C= ˢ E #Bᶠ #B ˢ +?= #?;⁴ D !?;ˢ
=>ˢ (=# =@ ⁴ ?;ˢ E #B?C# 8 # ?=ˢ ?!ᶠ #B ˢ ?D# = =A⁴
=>ˢ (=# =@ ⁴ = ˢ D =Aˢ =# ˙;?A # ⁴ !ᶠ B ˢ <
K ;# ⁸⁸ K >< =# ˢ D !?; ˢ #B ˢ + @; ᶠ#⁴ B ˢ > ˢ B ˢ
@ ==?ᶠ D ˢ K? # ⁴ ˢ KK ˙ ˢ D> B ˢ + K?! # ?=⁴
EB ˙ D>⁴ ᶠ ˢ @⁸ ;⁴ #B ᶠ B ˢ =?# < ˢ K >< =#
CK?=ˢ + #; ! ⁴ =@ ˢ #B ˙ ; ˢ @ =ˢ D ˢ=?ˢ #; 8 ˢ E #BL
?C# ˢ + @; #⁴ = ˢ B ˢ B < 8!ᶠ @ ==?# =>⁴ BC#
? < ˢ ?!ᶠ #B ˢ K ;# ⁸⁶ K >< =# ˢ E ˙ ˢ < ˢ D !?;
(=# =@ ˢ ˙ = ˢ ! ˙;#B ˙ˢ D =Aˢ *=# #?A # ⁴ EB #B ˢ
?;ˢ=?# B ˢ < ˢ =>ˢK ˙;# ⁸⁸K >< =# ˢ ˢ > ˙ˢ D !?;ˢ
#B ˢ + @; #⁴ !C ˢ ᶠ?ᶠ A ˢ ˢ K?! # ˢ = ˢ E ˙ˢ
#B ˙ #?⁴ #B?CABᶠ ᶠ B ˢ=?# < ˙" ˢ = ˢ ᶠ E ⁸⁸ 8!?
KK ˙ˢD>ᶠ#B ˢ # ˢ?!ᶠ#B ˢ + !@B ;A ˢ?!ᶠ#B ˢ ==C ⁸⁸⁹
˙ =# ˢ ˢ ˢ #8 ˙ ?E=ˢ B = ˢ?!ᶠ #B ˢ (C< ˢ @?=# = ˢ
ˢ #B ˢ ?= ˢ A; =# ˢ #?ᶠ #B ˢ 8 # ˢ B?Kᶠ #B ˢ
* 8 ˢ = ˢ #B ˢ O >ˢ K ˙ˢ < =# ?= ˢ =ˢ #8 ˙ˢ
+ K?! # ?=⁴ #B ᶠ #B ˢ < ˢ E ˙ ˢ A; =# ˢ #?ᶠ / #L
8 ˙ˢ 8?=Aˢ D !?; ˢ #B ˢ # ˢ ?!ᶠ #B ˢ + @; ᶠ # ᶠ #B ˢ
+ ?= #?; ˢ *= # =@ ˢ A = ᶠ #B ˢ & ;8 ˢ ?!'% ˙˙ ˢ = ˢ
B <ᶠ &?;ˢ 8D ᶠ / #8 ˙ˢ ˢ = ˢ B ˢ + K?! # ?=ˢ ! > ⁴
#B ᶠ #B ˢ %; = @# ?=ˢ E ˢ @?=@8C ˢ ? ! ˙;⁴ #B ᶠ ᶠ E ˢ =?#
%; = @# ?=ˢ E ˢ @?=@8C ˢ ? ! ˙;⁴ #B ᶠ ᶠ E ˢ =?#
?=8>ˢ ?= ˢ @?=! =!C K ;# C<⁴ BC#ᶠ ;A ˢ =# ; =#C⁴
D>ˢ K ;# ⁸⁸ K >< =# ˢ D !?; ˢ #B ˢ A; =# =Aˢ ?!ᶠ #B #
+ @B ;A ˢ = ˢ ˢ =AC8 ;ˢ 3C 8 ! @ # ?=ˢ ?!ᶠ / #9ᵍ
8 ˙ˢ K ! < ˢ ! ⁴ #B ᶠ 8D ᶠ B ˢ E ˢ B ;A ˢ = ˢ
+ =C=@ ˢ ᶠ #B & ;8 ˢ ?!ᶠ % ˙˙ ˢ = ˢ D ˢ =#
*= # =@ ⁴ > ᶠ B ˢ < =?ᶠ K >< =#⁴ DC#ᶠ CK?=ˢ #B

ˢ O ## ˙ˢ #?ᶠ (!?;#B⁴ B?Eˢ ??=ˢ B ˢ B ˙ ˢ B ˢ B ˢ
ˢ A?## =ˢ #B ˢ) !ᶣ EB @Bᶠ E ˢ K; ?;ˢ #?ᶠ =>ˢ # # ?=ˢ
ᶠ (!?;#BTˢ = # =@ ⁴ = ˢ #?8 ˢ (!?;#BTˢ A =#⁴
#B ᶠ B ˢ E ˢ ˙ !#= Aˢ #B ᶠ (C<ˢ #?ᶠ #B ˢ & ;8 ˢ ?!ᶠ % ˙ ˢ
˙ ⁴ D =Aˢ NC # ?= ˢ D>ˢ B <ˢ #B ˙ = =#⁴ EB?ᶠ χ ˢ
/ #8 ˙ˢ K?= ˵B ˢ ! ? ˙ ˢ #⁴ D>ˢ#B ˢ A # ˙ˢ
?!ᶠ ? < =A ⁵ EB ; ˢ #B ˢ + D# ˢ =?#= ˙˙ # ˢ =ˢ
#B ˢ) !#⁴ ˢ #ˢ ˢ =ˢ #B ˢ ? < =A⁴ #B ˢ) !# D ; =Aˢ
˙??<B ⁸⁸ #?ᶠ D ˢ K; =@ K ⁸⁶⁴ = ˢ #B ˢ ?=B ˙ˢ#E?ᶠ @ CL
?= ˙ ⁴ E #B?C# < =# ?= =Aˢ?!ᶠ / #8 ˙⁴ EB ˙ ˢ #B ˢ
?;= =Aˢ D ˙ ˢ #B <ˢ ⁸⁸ #?ᶠ D ˢ @?= C=@# K; =@ K 8 ⁴
ˢ #B > ˢ #;C 8>ˢ ˙ ⁴ EB @Bᶠ =@ ˢ #B # #B ˢ !9
@? ˙>ˢ E ˢ =?# !;?<ˢ #B ˢ A # ˙ˢ ?!ᶠ ?< =A ⁴
= ˢ ⁸D # / #8 ˙ˢ ˙ = <D ˙ ˢ #B ˢK8 @ ˢEB ˙ ˢB
K?" ˢ E #Bᶠ (!?;#B ˢ A =#⁴ > ᶠ B ˢ ˙ < <D ˙ ˢ
=?# EB ᶠ > ˙ˢ ᶠ E ˢ =⁴ =?;ˢ #B ˢ !?=ˢ #B ˙ ?!ᶠ
3C ;#?ᶠ %B ᶠ D ˢ ˢ =?# K >ˢ CK?=ˢ #B ˢ ˢ !; ! ˢ
KK ˙ ˢ ˢ =ˢ #B ᶠ B ˢ @?=!@! ˢ B ˢ B ˢ < ˢ K ˙;# ⁸⁸
K >< =# ˢ D !?; ˢ #B ˢ + !@B ;A ⁴ #B ˢ *= #;C@# ?=
EB ˙ ?!ᶠ E 7 ˢ ˢ =ˢ CKᶠ ᶠ #B # ˢ < ˢ E B?@?#
=?# B ˢD =⁴ !ᶠD?#Bᶠ A; < =ᶠ = ˢ K ;# ⁸⁸ K >L
< =# ˢ B ˢ =?# D ˢ =ˢ 8?=Aˢ K; ?ˢ ˢ > ᶠ B ˢ > ⁴
B ˢ = ˙ˢ E ˢ #B) !#⁴ <ᶠ ⁸⁸ B ˢA?# #B ˢ + !@B ;A ⁴
ᶠ #B ᶠ @?C8 ˢ =?# D ˢ = ˙ˢ + !#; ! ⁴ #B # < ˢ
K ;# ⁸⁸ K >=F =# ˢ ᶠ? #B ˢ +?= #?;ˢ D !?; ˢ B ˢ E
B ˢ) !#⁴ =?;ˢ :>ˢ W 8?C ˢ ᶠ? ˙! = ˢ A = ᶠ #B ˢ
+?= #ᶠ?;⁴ EBᶠ? K > ˢ B <⁴ D !?; ˢ B ˢ E B ˢ @#
% #8 ˢ O " ˢ B ˢ FK; ! 8> ˢ @"=?E8 A ⁴ #B ᶠ B ˢ
%; # ˢ = ˢ ?< <C= ˢ E #Bᶠ #B ˢ +?= #?;⁴ D !?; ˢ
=>ˢ (=# =@ ⁴ ?;ˢ E #B?C# 8 # ?=ˢ ?!ᶠ #B ˢ ?D# = =A⁴
=>ˢ (=# =@ ⁴ = ˢ D =Aˢ =# ˙;?A # ⁴ !ᶠ B ˢ <
K ;# ⁸⁸ K >< =# ˢ D !?; ˢ #B ˢ + @; ᶠ#⁴ B ˢ > ˢ B ˢ
@ ==?ᶠ D ˢ K? # ⁴ ˢ KK ˙ ˢ D> B ˢ + K?! # ?=⁴
EB ˙ D>⁴ ᶠ ˢ @⁸ ;⁴ #B ᶠ B ˢ =?# < ˢ K >< =#
CK?=ˢ + #; ! ⁴ =@ ˢ #B ˙ ; ˢ @ =ˢ D ˢ=?ˢ #; 8 ˢ E #BL
?C# ˢ + @; #⁴ = ˢ B ˢ B < 8!ᶠ @ ==?# =>⁴ BC#
? < ˢ ?!ᶠ #B ˢ K ;# ⁸⁶ K >< =# ˢ E ˙ ˢ < ˢ D !?;
(=# =@ ˢ ˙ = ˢ ! ˙;#B ˙ˢ D =Aˢ *=# #?A # ⁴ EB #B ˢ
?;ˢ=?# B ˢ < ˢ =>ˢK ˙;# ⁸⁸K >< =# ˢ ˢ > ˙ˢ D !?;ˢ
#B ˢ + @; #⁴ !C ˢ ᶠ?ᶠ A ˢ ˢ K?! # ˢ = ˢ E ˙ˢ
#B ˙ #?⁴ #B?CABᶠ ᶠ B ˢ=?# < ˙" ˢ = ˢ ᶠ E ⁸⁸ 8!?
KK ˙ˢD>ᶠ#B ˢ # ˢ?!ᶠ#B ˢ + !@B ;A ˢ?!ᶠ#B ˢ ==C ⁸⁸⁹
˙ =# ˢ ˢ ˢ #8 ˙ ?E=ˢ B = ˢ?!ᶠ #B ˢ (C< ˢ @?=# = ˢ
ˢ #B ˢ ?= ˢ A; =# ˢ #?ᶠ #B ˢ 8 # ˢ B?Kᶠ #B ˢ
* 8 ˢ = ˢ #B ˢ O >ˢ K ˙ˢ < =# ?= ˢ =ˢ #8 ˙ˢ
+ K?! # ?=⁴ #B ᶠ #B ˢ < ˢ E ˙ ˢ A; =# ˢ #?ᶠ / #L
8 ˙ˢ 8?=Aˢ D !?; ˢ #B ˢ # ˢ ?!ᶠ #B ˢ + @; ᶠ # ᶠ #B ˢ
+ ?= #?; ˢ *= # =@ ˢ A = ᶠ #B ˢ & ;8 ˢ ?!'% ˙˙ ˢ = ˢ
B <ᶠ &?;ˢ 8D ᶠ / #8 ˙ˢ ˢ = ˢ B ˢ + K?! # ?=ˢ ! > ⁴
#B ᶠ #B ˢ %; = @# ?=ˢ E ˢ @?=@8C ˢ ? ! ˙;⁴ #B ᶠ ᶠ E ˢ =?#
%; = @# ?=ˢ E ˢ @?=@8C ˢ ? ! ˙;⁴ #B ᶠ ᶠ E ˢ =?#
?=8>ˢ ?= ˢ @?=! =!C K ;# C<⁴ BC#ᶠ ;A ˢ =# ; =#C⁴
D>ˢ K ;# ⁸⁸ K >< =# ˢ D !?; ˢ #B ˢ A; =# =Aˢ ?!ᶠ #B #
+ @B ;A ˢ = ˢ ˢ =AC8 ;ˢ 3C 8 ! @ # ?=ˢ ?!ᶠ / #9ᵍ
8 ˙ˢ K ! < ˢ ! ⁴ #B ᶠ 8D ᶠ B ˢ E ˢ B ;A ˢ = ˢ
+ =C=@ ˢ ᶠ #B & ;8 ˢ ?!ᶠ % ˙˙ ˢ = ˢ D ˢ =#
*= # =@ ⁴ > ᶠ B ˢ < =?ᶠ K >< =#⁴ DC#ᶠ CK?=ˢ #B

ˢ ˢ ˢ *=)

E ' ! A= ' =' ! ?C; ' ?!' B ' + CAB# ;4 #B ' @?=9 #; ;' EB ; ?!' KK ; ' = ' '#?' EB # ' B @# 4 #B # / #8 ;' D>' B ' ? #B' ? '=?# < " ' # KK ;4 #B # B ' < ' #;C ' = ' ; 88 K >< =# = E ; ' / ; <?' KK?= ' #B ' @# ?!' / ;8 < =# = ' + L @; #4 = ' / #8 ; ' #B4 EB @B' ' C!! @ =# #?' F?= ;' B <4 (@C= ?' EB # ;' ! A= # ?= ' / #9' 8 ;' < ' #?' #B ' +?= #?;4 %B ' & ;8 ' ?!' % ;; ' E ' =?# @?=@ ;= 4 =A' #B ' & ;8 ' ?!' (!?;#B' @@ K# '#B ; ?!' 'K >< =#4 DC# #B ' (C< ' ! A=L 'E ; ' =?# K ; # 4 ' ' 8; >' !C ' >' @8 ; 4 = ' / #8 ;' KK?= ' B ' #B4 #B # B ' ' =?# ?<<C= 4 ?;' ?;; K?= ' E #B' #B ' &!8 ;8 ' ?!' (L !?;#B4 ?;' =>' ?#B ;' K ;!?=4 D !?; '#B ' & ;8 '?D# =L '#B ') !#4 F@ K# E #B' # ;' ||" =W ' =' #B ' % ;< ' B ' B ' K?= ' CK?=4 = ' #B # !# ;' #B ') !#' E '?D# = ' B ' E;?# ' ' 0 ## ;' #?' #B ' & ;8 ' = ' / #8 ;' E ' =?# #B ' ! ; # + !@? ; ;4 DC# # ;' @ =W '!;?<' #B ' A !# ;' ?!' ?< =A 4 #B ;' ' / #8 ;' E; # ' #?' #B ' & ;8 4 # 88' B ' "= E' B ' E ' =' B ' ; =@ 4 = 'B ' ; # ' # #B # # < ' =?# D8 ' #?' ; ! ' D ' A; # ' (C<4 = ' #B ; !?; 'B ' B 'A?? '; ?=' #?' #; # D?C# &!! @# 4 C# B ' #B' '@8 ;' %B # B '; < <D ; '=?# #B # ||' B ' K?" ' ?;' ; ' ' + @; ' !?;' B ' 2 ;; =#4 = 'B ' ? #B' 8 ?' !C88>' @8 ; ' #B # B ' < ' !C88' K >< =# = ' # ! @# ?=' #?' #B ' & ;8 ' = 'B ' ; L #?; 4 EB @B' # # 'B <' ='#B 'K; @ ! ' # ;< '?!'#B ' @# ?!' / ;8 < =#' = 'EB ; ' # ' = =C # ' #B # / #8 ;' < ' K ;# 88' K >< =# '#?' #B ' & ;8 ' ; #?; ' D !?; ' (=# =@ 4 = '#B # B '; !C '#?' K?= ' #B ; CK?=4 8D # =?# < ;" ' ' D ?L 8C# 8>' => '#B ' < ' = ' KK?= ' B ' ? #B4 = ' B ' '=?#) ; =# #B ' ?= ' # 88' !# ;' #B ' + @; # ?!' + @8 ; #?;4 = ' KK?= ' / #8 ; ' #B4 #?' 88' #B '; < = ### D @# ?= ' = ' '#?' #B ' ' A 9' =@ ' #B # / #8 ;' E 88' D ' K?= ' #?' B ' ?E=' K8 @ ' = E ; 4 #B ' < ' ' D!?8C# 8>' <K; @# L @ D8 ' $?;' #B ' & ;8 ' ?!' ;; ' <?= >' ' CK8 !# 4 = ' #B ' ! A= # ?=' #B ; #?4 = ' #?' #B ' & ;8 ' ?!' (!?;#B ' KK; # =A' E ' =' D8 ="' K ; ?= '= < 4 EB @B' B ' < AB# !; 8>' A; =# =?# D =A' @?=@ ;= 4 ;9 =A' B ' A?# D ' + ! B ;A 4 = ' B ' "=?E ' =?# EB?<' #?' "' #B <' !;?<4 = ' #B ' 0 >' K ;' = ' #B ' B?K' ?!' #B ' *!8 ' E 88' = ;' K ;# E #B' #B ;' ?= 4 ?' #B # #?' !?;@ ' # ;' #?' K >' #B ' <?= >4 E ; ' #?' !?;! C8# B <' D>' #B ' !# C; # ?=' ?!' #B ' & ;8 ' ?!' % ;; 4 EB @B' #B ' / ;8 < =# = ;' A= ' = ' ' #?' # # D @# < ' #B # / #L 8 ;' A?# ?E=' #E?' > ; ' = ' =' B 8! ' ==C 8; =#' = E ; ' *#' # ' ?=8>' ' < # " ' ?!' #B ' 2 ; # ;4 EB?' B ' =?# #B ' 8 # + !@B ;A ' ?!' #B ' ==C 88; =# ' C# #B ' +?= #?; ' + ! B ;A ' !@B ;A ' D?#B' K; =L @ K 86' = ' ==C 88; =# 4 = ' / #8 ; ' #B' @8 ; ' #B # B ' K > ' #B ' B 88' (C<4 = ' #B # #B ; ' E ' (='%B?C = ' < ;" ' C ' ?!' #B ' KK; ! =A' ? ;' = ' D? ' #B '% ='%B?C = ' < ;" ' !?; < ;8>' K >L 4 = ' #B # B ' A ' #B ' & ;8 ' ='& ! ' ?!' #B ' (CK ;K8C ' ?!' & AB# ?;' >= ' %B?C = ' < ;" 4 EB @B' E ' ;>' @?= ; D8 4 ' B ' ? #B' !C88>

=@ 4 = ' !' B 'B '%; = @# 4 #B '&!C8 '?!' (!?;#B4 '#B ='@ ;@C< # =# # 4 @?C8 'B ' 8>' A?## =' B ' 0 ! ; =# & @B # %B ' EB @B' / # # ?=' A ='=D>'#B ') ?=' (@?## ?!' >' B # ;' = ' B ' %C#?; ' = ' C; #?; ' #?' #B ;' # ' AB' ?<< ! ?= ;' = '#B '& # # '?!' / ;8 < =#4 E #B' #B ' = E ; ' #B ; #?' < '!?;' #B ' K ;# ?!' #B ' (;' J?B=' + <K # ;' ?!' / #8 ;4 E #B' #B ' !?; ' + KC# ' K;?K?= ' D>' #B ;' K ;# ' K;?L @C; #?; ' =' < == ;' !?; 4 E #B' #B ' !?; ' @# ?!' / ;8 < =#4 !#?; =A' #B ' @ ' & ;8 ' ?!' % ;; ' A = # B ' $?;! C8#C; 4 = ' #B ' #B' = ' + K?! # ?=' ?!' #B ' ' (;' J?B=' + <K # ;' ?!' / #L 8 ;' + ! = ;4 # " ='D>'#B 'O?; '?!' (! ?=4 @?=L @ ;= =A' #B 'K >< =# = ' # ! @# ?=' < 'D>' B <' #?' #B '& ;8 ' ?!' (!?;#B' +?= #?;' !?; ' = '#B ' < == ;' #B ; ?!' D =A' D>' B ') ; @ '#B ;' # ' B AB' ?<< ! ?= ;' = '#B ' '& # # '?!' / ;8 L < =#9!C88>' ?= ; ' = ' #B >' #B ; E #B' D =A' E 88' ';>K 8>' '%B ;' # ' = ' #B ' & # # '?!' / ;8 < =# '(C # = ' = 'B ; D>' (C # = ' #B ' K >< =# < 'D>' #B ' ' (;' J?B=' + <K # ;' ?!' / #8 ;' + ! = ;' ='(K @ 4 = '#B ' ' 88 ' ?!' &F@B =A ' = ' #B ' ?= 'A; =# 'D>' B <' #?' #B '8 # ' ?K' ?!' #B '* 8 ' = '#B ' O >' K ;' ' ; #?; '#?' #B ' ' & ;8 ' F# = =A' #B ' ' (C<' '#?' #B ' (C<' ?!' C!! @ =# #?' F?= ;' #B ' ' (;' J?B=' K;?' # =#?' ' = ' #B ; !?; ' %B ;' L # 4 = '#B '& # # '?!' / ;8 < =# B ' ? A ' = 'B ; D>' ! ? 8A ' #B ' ' (;' J?B=' + <K # ;' ?!' / #8 ;' NC? ' #B ' (C< ' = ' + @ ;= ' = ' + @8 ; ' B <' NC # ' #B ; ?!4 = ' !; ' #B ; !; ' =' 88 # < ' @?< =A' C# #B >' ?' =?# (C # =4 #B ' %; = @# ?= ' < ' !?;' #B ' (C< ' C 'D>' #B '& ;8 ' ?!' ;;' < 'CK?=' #B ' KK; =! =A' A = # #B '& ;8 ' ?!' (!?;#BT' & # # 4 F# = =A' #?' #B ' (C<' ?! 'K >< =# =' #B '# ;< '?!' #B ' @# ?!' / ;8 < =#4 =' ! ?C; '?!' #B ' ' & ;8 ' ?!' % ;; ' = ' #B ; !?; ' #B ;'P # ' = ' #B ' & # # '?!' / ;8 < =# + @ ;= ' = ' ; = ' #B ' ' (;' J?B=' + <K # ;' ?!' / #8 ;' #?' < " ' K >L < =# #?' #B ' ') ?=' (@?## ?!' >@B # ;' KC;9' !C ;' = 'B '%C#?; ' = ' C; #?; '!?;'#B ;'*=# ; # ' ?!'#B 'K; =@ K ' ' (C< ' C 'D>'#B '& ;8 '?!' ;;' = ' (!?;#B' !?;' EB @B' #B '#; = @# ?=' E ' < 4 F# = =A' ' ' '#?' #B ' ' (C<' ?! = ' ?!' #B '?; = ;' ==C 88; =# ?!' #B ' 'K; =@ K 86' (C<' =@ ' 2 B # C= >' = ' #B?C = ' (F' C= ; ' = '& AB#>' (F'> ; ' = ' =' # < ' @?< =A' < =A' #B ' =?# K >< =# = ' 8 " E > ' + @ ;= ' = ' ; = ' #B ' ' (;' J?B=' + <K # ;' ?!' / #8 ;' #?' < " 'K >< =# #?' #B ' ') ?=' (@?## KC; C ;4 = ' B '%C#?; ' = ' C; L #?; ' !?; '!?;' #B ;'*=# ; !# 4 ?!' #B ' (C<' ?!' %B; ' #B?C = ' < ;" 4 ' #B ' ==C 88; =# ?!' #B 'K; = 9' K 88' (C<' ?!9%E =#>' #B?C = ' < ;" ' !?;' #B ' K @ ' ?!' #E?' > ; ' = ' ='B 8!4 ' !;?<' ;# < ! ' = ' #B?C = ' (F' C= ; ' = ' AB#>' #B; '#?' 2 B #L C= >' = '#B?C = ' (F' BC= ; ' = ' AB#>' ! F' > ; '*=' ; A ; '#B ' ==C 88; =# 'E ; '=?# K >



(CKK8 @ =# D>' J?B=' = ;!?='?!'+?EB '4 EB?' C# ?= ;'!?;'#B ' 'J >8?;4 = ' 'B =A' ='#B ' 8 # '# < 'D ='B < 8!' #; ! '!?;'#B ' '!!>= 4 # 88'B 'K > '#B ' < 4 '?D# ='+ @; # ='#B? ' > ' A = # #B 'K # # ?= ;' C D = '!?;'B ' 9 8 !4#B?CAB'=?'0 E> ;' ='#B ' 2 ?;8 '@ =' >4#B # 'K ; ?='E;?=A?C 8>'=@ ;@ ; # 4 = 'D>'#B '/;?L =@ '?!')? 4 ; @? ; =A'B '= #C; 88'0 D ;#>4 E #B?C# ?8 =@ '?;'!; C 4 E ';'@C8K D8 ' = ' #B # C@B'E '#B ' @ ' 8 @"E 88 '@ 4 ' L =# !;?<'#B 'K; ! =#)? ;=< =# ' 8 #8>'; K;?L D # =A' 88 ?=! = < =# '?;'*<K; !?=< =# ' ='#B ' 8 # '# < ' ?='#B ' @@?C=# ?!' ?= =# @8 '?;'B ;L D?C; =A'/; D># ; =' ; # ; ' = ' =A'#B ' K # # ?= ; ' ?= # ?=' ' < ; # ' B '); @ '#B ;' !#>' AB' ?<< ! ?= ;' = '#B '&!# # '?!' / ;8 < =# '?<K ! ?=4 ='; A ; '?!'#B '= ;;?E9' = ! '?!'#B ' 8 C! ' ='#B ' @#?!'/ ;8 < =#4 9' !@ = =A'!!>= ' = '!!?;! C8#C; 4 EB @B'#B ' ?<9' < ! ?= ; ' KK? =# '#?' @?A=?!@ '#B ; CK?=4 4 D>'#B ;'*=# ;8?NC #?;4 K;? C@ 'E #B'#B 'K # # ?='$ = ' =?#?' ?<K; B = '#B 'K # # ?= ; ' ! 4 E #B?C# ' K 88 < ## = ' ! ; =@ 'D>'#B '/;8 < =#4 = '#B # ?#B ;E >' +?EB ''' E 88 '#B 'K # # ?= ;'B 'D ='<? # ; A 8>'#; # '?='#B ' @@?C=# !?; '='#B '8 # '# < ' '!?; 4 ?#B # K # # ?= ; ' ; @?C; ' A = # B <' < AB# K;? '8C!?;>4 'D =A'#B '@ !'?!'?='K; 8 A 'K ; ?=' A = # =?#B ;4 = ' =A'< =>'8 !' ; L =A' D @#'B 'D ='; 8 ' = 'CKK8> '!=@ ' #B ' ?8C# ?=4 ?C# ?!'#B ' @ =# (# K = 4 #B ' B?K ' =#'?;' ?< ' ?#B ;' $?= ' %B ; !?; ' C<D8>'D @B =A'B '); @ '#B ;' # 'B AB' ?<< ?= ;' = '#B ' '& # # '?!'/ ;8 < =# #?' # " '#B 'K # # ?= ; ' @?= # ?='#?' @?= % # ?=' = 'D>'#B ;' + 8 ; =@ 'CK?='#B ' 'K # # ?=4 A; @ ?C 8>'#?' ; ='#B ' '/ # # ?= ;'#?'D '; L !?C= '?!'#B ' '(C<'?!'& AB#'%B?C = '< ;" ' F @# ' = 'K > ' ' !?; 4 = '#B # ?C# ?!'#B ' ! ; # @ =# (# K = 4 ?;'?C# ?!'#B ' B?K ' =# 4 D>' EB # ? ;' #B ' ; #?; ' = ' K ;?@B = ; ' ?!' C@B' @ =# K ;?@B 4 ?;'#B ' ?88 @#?; ' = ' *=9' D; =A ; ' ?!'#B ' ' =# 4 ?;'?C# ?!'EB # $?= ' B ' B?C8 'D '#B?CAB#'K;?K ;' '#B ' 'K # # ?='D ; ' 2 B @B'/ # # ?='D =A'CK?='#B ' &8 =#B'?!' >'8 # D>K #4 ; ' ='/ ;8 < =#4 '); @ '#B ;' # ' AB' ?<< ! ?= ;' = '#B '& # # '?!'/ ;8 < =# @?<< = '#B ' < '#?'D '@?=L ; 'D>'#B ' ?<< ## ' KK? =# '!?;'&8 @# ?= ' = '#?' ; K?;# #B ;' K = ?='#B ; ?!'#?'#B '/ ;8 L < =# = ' @@?; =A8>'#B ' ' ?<< ## '?!'&8 @L # ?= ' B =A' CK?='#B ' ! ; # >' ?!'#B ' *= # =# <?= #B'?!'JC= ' ?= ; ' #B ' 'K # # ?='= ' *= #;C@# ?= ' #B ; E #B' K;? C@ ' !! = 1%B # #B ' '%B?< ' 8 @"E 88'E ' <K; !?= ' ='); 8 A?E' ='#B '> ; ' = '#B?C = '(F' BC= ; ' = '(L =#>' (='!?;'!; NC =# =A' ?= =# @8 4 = ' B ' E #B'?= ' 2 88 <' (# ;B=A' XD =A'8 " E >' =L @ ;@ ; # ' CK?='#B ' < ' @@?C=#`' B =A' < ' #8 ;' @ K ' ?C# ?!'#B ' ' %?8D??#B4 = ' #B ?C=@ 88' B =A' ?= = ' #B ' A #; # ' ?!'); 8 A?E' !?;'#B ' # < 4 !?;' C!! ; =A' ?!' #B <' #?' !@ K 4 #B ' ?C=@ 88' !!>= ' #B ' %?E= ' ='% =' #B?C = '< ;" 4 = '; ; '#B ' A #; # '#B ;' @# ?='?!' 8 !' A = # #B ' K ;!?= ' EB?' ' !@ K 4 D ! ' ; 8 !'?!'#B ' J >8?;' = ' B ' CL # ?= ; ' ' @@?; 4 EB ; CK?='#B ' 'J = # 1=?F' = ' ='B 8 ; ='E ; '#B;?E='?C#?!'B ;' E 88L =A'B?C! 4 = '#B ; !# ;'#B ' '%B?< ' 8 @"9' E ' D =A' KK; B = ' E ' #B;?E=' A ='=#?' K; !?=' = '#B ; ' # = ' C; =A'#B ' K @ '?!'#E?' > ; 4 C=# 88'#B ' 'J = # D =A' = D8 '?!'#B ' =A ;'B ;'BC D = 'B 8#B'E ' =4 E '= @ ! # # '#?' ; =C=@ ' =>'; AB#' B 'B ' #?' '0 ! ; =#'; AB#' ?C#?!'B ;'BC D = '% = ;B =# 4 #?E ; '#B ' # L ! @# ?='?!'#B ' (C< '!?;'EB @B'B 'E ' <K; !?= ' = '#; = @# '#B ' '(C< '!?;' (='#B?C = ' < ;" ' !'EB @B' !C<'K; =@ K 88' = ' ==C 8D =# ' #B ' '%B?< ' 8 @"E 88' ='B '8 ! # < 'K > ' %E?'#B?C = '!> 'BC= ; ' = '! !#>'< ;" 4 = ' #B ' 'J = # = 'B ;' (?=4 =@ '#B ' ?8C# ?=4 D =A' #; ! '!?;'#B ' ; < = ;'?!'#B ' (C<' #; = @# '!?;' = ' B '@ # =#?'K; !?='B 'K > ' #B ' (C<'?!'!!> '#B?C = '< ;" ' # = 8 < ! ' 8 !#4 ?'#B #'#B 'K; =@ K '(C<'K > 'D>'B ;' C L D = 'B ;' (8!' = 'B ;' (?='<?C=# ' =' '#?' (;'= #B?C = '! 'BC= ; ' = '! !#>'< ;" ' = '#B ' ?<< ## '@?= ; =A'#B '< ! ;>' = ' C!! ;L =A 4 EB @B'#B ' 'J = # = 'B ;'BC D = 'B ' 'C= ;A?= ' =4< == ;' D? '; K; ! =# 4 = '8 " L E >' @?= ; =A' #B # D '#B 'K >< =# ' D L !?; '< =# ?= 4 #B ' '%B?< ' 8 @"E 88 D>'#B ' D? 'E; ## ='C! A 'E '; = ; 'C=@ K D8 '?!'!?8L 8?E =A' '!8??; B =A' %; 'EB @B'B 'E ' =' C! ' !?;< ;8>'#?' !?88?E'#?'#B 'A; # K; C @ '?!'B ' 2 ! ' = ' B 8 ; =4 B 'B < 8!'B =A' @ ' ?< '! E'E " ' !# ;'B '; 8 < =# !;?<'K; !?=4 #B >' C A '#B # # E?C8 'D ' = ' B; !# =' = ' K ?C 'E?;"' ='#B ' / ;8 < =# #?' # " '#B ' ' J = # 1=?F' = ' B ;' B 8 ; ='#B ;' @?= # ?='#?' #B ;' ; ?C '@?= ; # ?=' = '#?' KK? =# ?< ' !! @#C 88' E >' !?;'#B ;' ; ! 4 '#?'B ;' = 'B ;' @ ' C D = '8?! ' = ' <= A ' C # = ' =' < == ;' D? '; K; ! =# ' 2 B @B' K?;# B =A' D =' A =' ='#?'#B ' / ;8 < =#4 = '#B ;' L !#>' AB' ?<< ! ?= ;' = '& # # '?!'/ ;8 L < =# B =A'#B ' >' !C88>' ?= ; '#B ' < ' #B >' B ' < ## ' = 'B ; D>' < ## #B ' ' J = # 1=?F'B ;'@?= # ?='#?'D '@?= ; 'D>'#B ' /; >' ?C= 4 = '#?' ?'#B ; =4 '#B >' B 88 ' C!

+ & & +'#B # #B '/CD8 @"' @#' 8; >'K; 9' =# 4 D '@?= ; 'D>'#B ' / ;8 < =#4 D !?; ' =>' K; # ' C! = !' EB # ? ;4 = '#B # 88 @#' ;#C; ' = '/ # # ?= 'D '@?= ; ' @L @?; =A'#?'#B '# < '?!'K; ! =# =A'#B ' < ' ='/ ;L 8 < =#

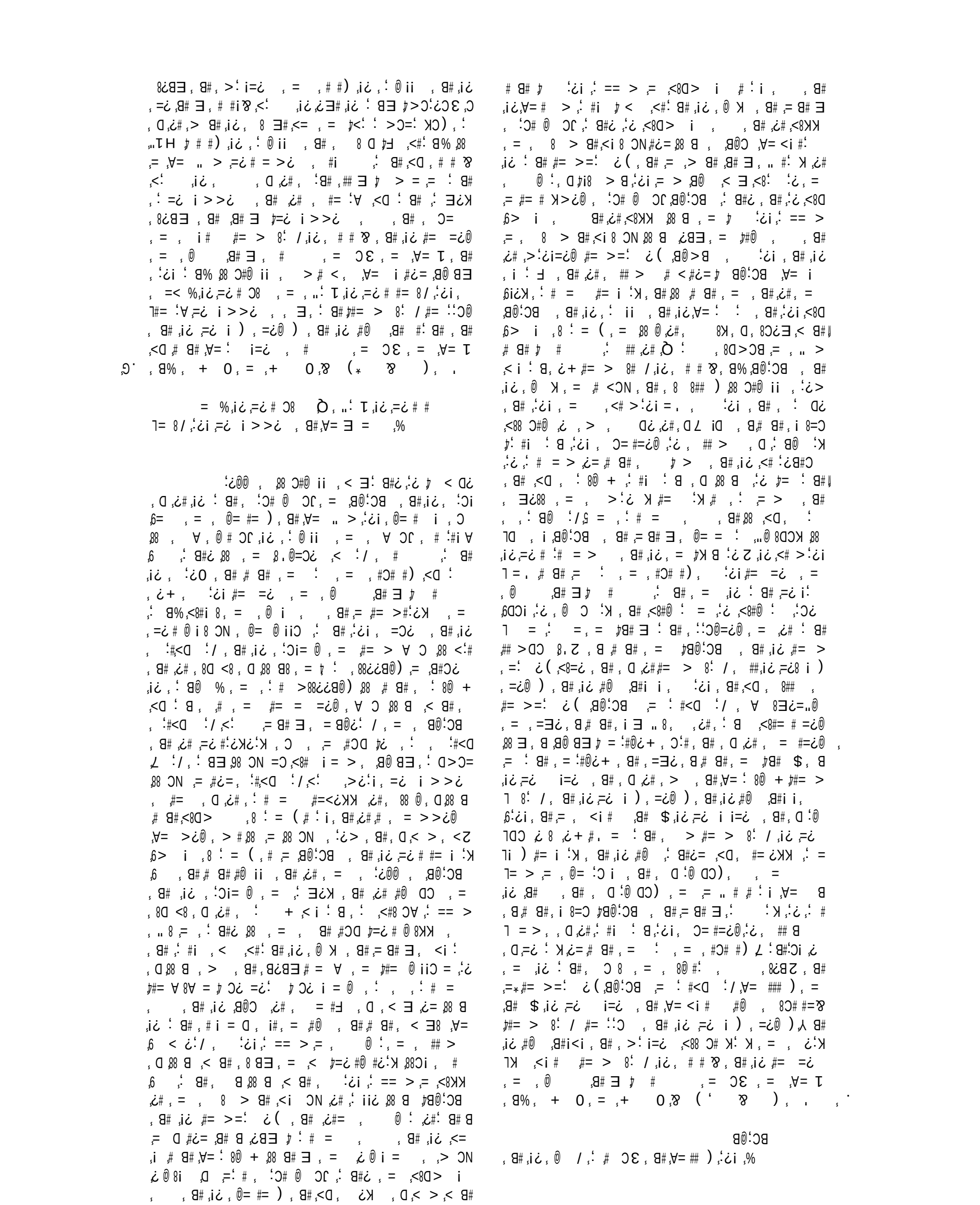
d ; ;'?! <*+- · Ø + ' - ' 27 * * 'Q + 0

s s s s

s =s ! ?C; s ?!s 8 F = ;s *; = s ?!s
+;C<s = s B s < = !#; #?;

. s & %s #B s (CKK8 @ # ?=s A =s =s = s K; =# s
#?s B s); @ s #B ;s # s B ABs ?<< ! ?= ;s
= s#B s AB#s ?=?C; D8 s #B s & # # s ?!s / ;8 L
< =#s D>s 8 F = ;s *; = s ?!s C;#8 s !?;s B < 8!4
= s =s= < s = s D B 8!s ?!s #B s ; < = =#s ; s ?!s
% 8A s #B s s 8 F = ;s *; = s ?!s +;C<s
(B E =As #B #s EB ; s #B s s 8 F = ;s *;L
= s ?!s +;C<4s D =As = D8 s ?!s B s 8 #s ?=s
f#B s K; ! =#s 0 ; s ?!s +;C<`s B s *= K?!8# ?=s = s
C #= ! s #?s < = A s B s ?E=s !! ; 4s s D>s ;#C s
?!s #B s K?E ;s s $ @C8#>s B s B s =s s B ;#?;s
); =# s D>s 1 =As B 88 s #B s (@?= 4s # !> s
= s ?=! ;< s =s / ;8 < =#4s < " s s ?< = # ?=s
?!s #B s ; 4s #B #s E ; s #?s C@@ s B <4s ! A =As
?!s #B s ; 4s< 8 s?!s B s?E=s ?m4s *=s EB @Bs ?L
< = # ?=s #B s / # # ?= ; s $ #B ;s E s #B s ! ; #4s s
8 ?s s8 s B <4s = s ?< s?#B ;s ?!s B s $; = s
< = #; #?; s!@ s#B s & # # s = s !! ; 4s ?s #B #s
#B s 9+;C<s E s 8#?A #B ;s C s !;?<s #B s
< A < =#s #B ; ?!s D>s ; ?=s ?!s B s *=@ K @ #>s
= s =As#B s ?=?C; D8 s & # # s ?!s / "! < =#s
; s ! <D8 s#B s / # # ?= ;s B s K; C< s!?;s#B s
K; ; # ?=s ?!s #B s!! < 8>4s #?s EB @Bs B s B #Bs #B s
K;? K @#s ?!s (C@@ ! ?=4s BC<B8>s #?s; K; ! =#s #?s B s
); @ s B s # s AB s ?<< ! ?= ;s = s #B s
B?=?C; D8 s & # # 4s #B #s =As #B s K; =#s 0 ; s
?!s +;C<s s "=?E=s #?s B s C=! ##s = s =@ K D8 s?!s
< = A =As B s?E=s !! ; 4s s #s s<? #s=?#?C;s #?s
!?< s ?!s #B s B?=?C; D8 s < <D ; s ?!s #B s K; ! =#s
/ ;8 < =#s = s B s & # # s D =As C A s = s
C= ;s @?= ; D8 s DC;#B = 4s EB @Bs E 88s X !s =?#s
K 8>sK; =# `s C## ;8>s F# =AC !Bs #B s< <?;>s
?!s #B s $ < 8>4s E5B @Bs D #Bs D =s s s ;>s 8?=As
= =A4s = s B #Bs B s #B s B?=?C;s#?s B s< #@B s
#?s < =>s ?!s #B s A; # #s $ < 8 s =s #B s 1 =A ?<4s
EB @Bs@ =s ?=8>s D s K; 8 s D>s #B s (8 s ?!s s K ;#s
?!s #B s $?;#C= 4s EB @Bs <C #s K;?@ s D>s s K @ 88s
2 ;; =#s !;?<s #B s / 8 < =#s !?;s #B #s !! @#4s #B ; s
=?#s D =As =>s !?;< ;s (# #C# s 88?E =As #B s = =4s
#B #s NC ; # s E #Bs #B s @ ! 4s 8#B?CABs #B s; ?=s
B s#B s < =4s !s =?#s #;?=A ;s #B s =s #B s @ s ?!s
s < =?;s Q@s %B ; !?; s = s =As =?s K ; ?=s @ =s
C # =s #B s 8 #s K; C @ s D>s EB #s s B ; D>s L
= 4s DC#s ?=s #B s @?=#; ;4s #B #s #B s *=# ; #s = s
=# A s ?!s 88s @?=@ ;= s =s #B s $ < 8>4s s E 88s
; #?; s s ?#B ; s B 88s D s#B ; D>s K;?<? s = s
%B ; !?; s C<B8>s ; =As #B #s #B ;s # s
B ABs ?<< ! ?= ;s = s#B s ?=?C; D8 s & # # s?!s
/ ;8 < =#s E?C8 s # " s #B s 0<; s ?!s +;C<s B s
=AC8 ;s @ ! s #?s #B ;s @?= ; # ?=4s = s E?C8 s
!K @ 88>s ; @?<< = s #?4s = s 88?Es #B s 0?; s ?!s
(! ?=s #?s @?= ;s #B s @ ;@C< # =@ s ?!s #B s $?;L
#C= 5s = s !s #s D s !?C= s ; NC ! # s #?s 88s ?< s
K ;# s #B ; ?!4s #?s 88?Es #B s / # # ?= ;s #?s @ ;;>s ?=s
s (8 4s = s#?s C#B?; W s = s <K?E ;s #B <s #?s 88s
#B s < 4s !?;s K > =As ?!s #B s K; ! =As + D# 4s !!?;

EB @Bs #B s& # # s s C A 4s = s @8 ; s#B s KC;L
@B ;s @C; 4s EB ; D>s #B s 0 A 88 s?!s #B s C L
@ # ?= s 8; >s 8 s < >s =?#s FK ; 4s = s#B s 0 L
=As ?!s ?#B ;s C @ # ?= s < >s D s K; =# 4s s
#B s s(CKK8 @ # ?=s <?; s!C88>s B ; s 2 B @Bs D =As
; s =s C =@ s?!s #B ;s !# s AB s ?<=C!9s
?= ;s = s #B s #B; s & # # s ?!s / ;8 < =#4s CK?=s
#B s &8 =#Bs >s ?!s >s 8 #s D>s K #4s #B >s C9s
K ;@ s#?s A s =!E ;s #B ; #?4s C=# 88s #B s >=9s
=#Bs >s ?!s >s #B ; !# ;4s #B #s #s < AB#s KK ;s
!s =>s K ;!?=s E?C8 s?D @#s A = #s #B s !>; s#B ; L
?!s !# ;s K;?=?C=@ =As ?!s#B s EB @Bs*=# ;8?NC #?;4s
#B ; s E s =?#B ;s K # # ?=s A =s =s = s K; =# s
#?s #B ;s #> s AB s ?<< ! ?= ;s = s #B s
& # # s ?!s / ;8 < =#s D>s ;>s *; = s 8 #s 8 E9s
!C s + CAB# ;s #?s #B s < s @ s 8 F = ;s
*; = s?!s +;C<s = s / #; @"Z 0 8>s?!s 8NCB>= s
B ;s C D = s!?;s B s*=# ; #4s (B E =As #B #s EB ; s
#B ; s D =As s K # # ?=s A =s =s #?s #B ;s !# s
AB s ?<< ! ?= ;s = s ?=?< D8 s & # # s ?!s
/ ;8 < =#s D>s 8 F = ;s *; = s ?!s C;#8 s !?;s
B < 8!s = s =s = < s ?!s #B s ; < = =#s ; s ?!s
% 8 s?!s#B s @ s 8 F = ;s*; = s?!s +;C K4s
; =As#B #s #B s / ;8 < =#s E?C8 s; @?<< = s#?s
#B s 0?; s ?!s #B s (8 ?=s #?s @?= ;s#B s @ ;@C<L
=@ s?!s#B s$?;#C= s?!s +;C<4s = s !s= s E ; s
#?s C#B?; W s #B <s #?s (88s ?< s K ;#s #B ; ?!s !?;s
K > =As ?!s #B s K; ! =As + D# 4s !?;s EB @Bs #B s
& # # s s C A s 2 B ; !?; s #s E s BC<B8>s ; 9s
K; ! =# s #?s #B ;s #> s AB s ?<< ! ?= ;s
= s ?=?C; D8 s & # # s?!s / ;8 < =#s #?s @?= ;s
/ ; <?s #B #s #B s & # # s ?!s +;C<4s D>s #B s =@ =#s
*=! !#< =#s#B ; ?!s E s K;? > s #?s ; s EB #L
? ;4s C=# 88s #B s8 # s 0 ; s ?!s +;C<4s B =As ?DL
= s s B ;#?;s !;?<s 1 =As B ;8 s #B s @?= 4s
s#B ; =s ; ; s s ! @C8#>s #?s B < 8!s !s ?< 9s
= # =As#B s ; s#B #s E ; s#?s C s B <4s ! 8 =As
?!s ; s < 8 s?!s B s ?E=s D? >4s BC#s = ;s < s
C! s?!s#B s s$ @C8#>4s ?;s !s B s s#B s < s E s
<? # <E !; =# D8 s 88 A 88s = s C;; K# # ?C 8>s <9s
K #; # s!;?<s B <s CK?=s #BD s D>s #B s8 # s 0 ; s
?!s C;#8 s XEB?s s ;>s ; <?# s 8 # ?=`s =s B s
?E=s!! ?C; 4s EB @Bs !s 88?E 4s < >s K;? s?!s ;>s
=A ;?C 4s @?= NC =@ s #?s <? # ?!s #B s =@ =#s
$ < ' s?!s #B s # ?=4s = s #s s A = #s =! s!?;s
C;#8 s#?s K; # = s#B #s B s s ;s?!s % 8W s#?s#B s
@ s 0 ; s ?!s +;C<4s $?;s 8#B?CABs B s K; 9s
# s# #8 s E ; s A?? 4s = s #B s K; ! =#s 0 ; s ?!s
+;C<s 4s B s @?C8 s D s =?s <?; s DC#s KK ; = s
;s ?!s % 8A 4s = s #B #s #?s #B s K; ! =#s +;C< s
(@C= ?s *#s s #?s D s @?= ; s #B #s #B s 0 >s
8NCB>= s s#B s 8 #s (# ;s?!s#B s K; ! =#s 0 ; s
?!4s+;C<4s EB?s B #Bs =?s ;?#B ; s 8 4s = s @?=L
NC =#8>s D>s #B s 8 s *=! !#< =# s ?!s #B s s
& # # 4s B #Bs #B s ?=8>s#;C s = s 8 A 88s K;? K @#s ?!s
(C@@ ! ?=s #?s #B s s$?;#C= 4s ! 8 =As ?!s #B s K5 9s
! =#s 0 ; s ?!s +;C<4s = s #B s ; s ?!s B s ? >4s
= s 8 " E > s #B #s #B s 0 ; s ?!s 8NCB>= s B ;s
C D = sB #Bs C A s#B s s& # # s!?;s!!?C;#>s
#B?C = s< ;" 4s = s#B ; CK?=s FK s s B ;#?;s



=?; = ' !! @# ?!' #B ' !?; ' ?<< ! ? ' =' < =L
= ;' = ' #?' #B ' = ' K @ ! ' =' #B ' ' @#4 E #B'
#B ' # ?=4 #B # EB ; ' #B ; ' ' 'A; # !! ;L
=@ ' '#?'% >= 4 EB ; ?!'#B '; AB# B '= ;'@?< '
=' #B ' K ; ?=' ?!' #B ' ; #?;' ?!' #B ' 0 = 4 = '
#B? '% >= 'EB ; ?!'#B '; AB# B '@?< ' =' #B 'K ;9'
!?=' ?!' #B ' ; #?;' = 'B '8 = '#B ; !# ;' !?8 '?;'
!! C '?C# D>' #B ' ; #?;4 ; =A' #B '% >= 4
?;' EB ; ' #B ' % >= ' ; ' =?# K?= 4 #B # ='
C@B' '@ '#B ' ; #?;' EB?' ?8 '?;'!! E '?C# #B '
0 = 4 B?C8 ' =?' <?; ' D ' ?D8 A ' #?' 88 #B? '
% >= ' #B =' ' (CK ; ?;4 ?;' ?#B ;' ; #?;' @ =' D '
?D8 A ' #?' 88 B ' !! C' C# 4 ?;' =>' ?#B ;'; AB#
?!' K;?K ;#>' #B # B ' B ' ; ; 4 EB =' B ' ?8 '?;'
!! C '?C# #B ' 0 = ' %B ; !?; ' *#' ' (# #C# ' = '
; = 4 #B # #B ' ?<< ! ?=' B 88 =?# D ' FL
= 4 '#?'#B ' 88 =A' ?;'DC> =A4?!' C@B'% >= 4
EB ; ?!' #B ' ; AB# B ' ?=@ ' D =' =' #B ' K ; D='
?!' #B ' ; # % ?!' #B 90 = 4 = ' EB @B' 0 = '
E ; ' #B ; !# ;' ?8 ' ?;' ! C ' ?C# D>' #B ' ; #?;'
E #B'#B ' ; ; # ?=' ?!' #B ' ; AB# ?!' #B '% >= 4 ?;'
E #B?C# + K?= =A' ?!' #B ' ' % >= 4 E #B?C#
K; C @ ' 8E > ' #?' #B ' ! B88 ?;' ; #?;' ?!' #B ' 0
0 = ' #?' 8C ' #B '% >= ' =' #B '# ;< ' ?!' #B '
' @# = ' ?<< ! ?=4 = ' ?=8>' D ' 8> D8 '
#B ; !# ;' !?;' K >< =# ?!' #B ' 8C ' +C# 4 '
8 ?'*#' ' + @8 ; 4 #B # #B ' ' ?<< ! ?=' B 88
=?# D ' F# = ' #?' #B ' DC> =A' ?;' 88 =A' ?!'
% >= 4 EB @B' !?;< ;8>' K ;# = ' #?' #B ' BNK '

EB ; ?!' *#' ' (# #C# ' = ' ; = ' #B # =>'
2 ;; =# #?' D ' A; =# ' B ; !# ;' D>' #B ' ?<< !L
?=' #?' ; #?; '!?;'8 =A' ?!' #B ;' % >= 4 8B 88
= C; ' ?=8>' C=# 88 ' K;?# !# # ?=' !?;' =?# = # =A'
D '?D# = ' # #B '*=88 =@ '?!' #B '+ ! = ;' = '
D =A' ! ## = ' @?= = =# #B # #B '# < '?!' #B '
=A' ?!' #B ' ?<< ! ?=' D '8 < # ' = '! F '# W
'# < 4 #B # #B ' 0 A ' < >' =?# D '?D8 A '#?' = '
C=@ ;# = ' ## = =@ '%B ; !?; '*#' ' (# #C# ' = '
; = ' #B # #B ' ?<< ! ?=' B 88 < # = ' ##
?E=' #B '! ; # 2 = >' !# ;' #B '! ## =A' ?E='
?!' #B ' (! ?=4 = ' #B ; !# ;' B 88 < # ;>'
2 = >' E "8>' =' #B ' !# ;=??=' C; =A' #B '
! ## =A' ?!' #B ' (! ?=4 # 88 #B '! ; # 2 = >' !# ;'
;>! =A' #B ; ?!' =@8C 4 = ' ?' #?' @?=# =C '#B ;'
< # =A '> ;8>' C; =A' #B ' # = =A' ?!' #B ' ?=?9
< ! ?=' C#4+ @8 ; ' #B # #B ' ?<< ! ?=' 8B 88
=?# < # =' #B ' @ =@ '# < 4 !# ;' #B '! ; # 2 L
= >' = F# = ' << # 8>' !?88?E =A' #B ';>! L
=A' ?!' #B ' (! ?=4 =?;' '#B ' ?<< 8 ?=' #?' < #
CK?=' =>' ?#B ;' > ' ?;' =>' ?#B ;' +> # ' W#B =' '
88?E ' D>' #B 'K; ! =# @#4 = '#B '! ; # +> # ?!'
< # =A' ?!' #B ' ' ?<< ! ?=' B 88 D '#B '! ; #
2 = >' ?!' ? <D ;' =' #B ' = # =# > ; '
= '#B?C = 9(F' BC= ; ' >=#>' #B; ' = ' 9'
=A' #' ';>' =@?= = =# !?;' / ;# ' ?@ # ' '
= '?#B ; '#?' ## = '#B ' ?<< ! ?=' #'#B '0?E ;'
%?E=' ?C=@ 88 B?C! 4 EB ; '#B ' ?<< ! ?=' B '
D =' ?; = ; 8>' =' C! ' #?' ##' #B '> ; 'D>K #'

%B ; !?; ' ; = ' #B ' ?<< ! ?=' #?' ##' =' #B '
*== ;' (! ?=' ?C! 4 EB ; 'K ;# ' ?@ # ' = '
88 ?#B ; ' @?=@ ;= ' < >' #B ' <?; ' @?= = =#8>'
= ' = '%B ;' !# '+ @8 ; '#B # #B >' E 88
! 88 #B 'K8 @ '?!' =>' ?!' #B ' ?<< ! ?= ; '#B # ; '
@ '?;' =@ '#?' =?#B ;' (# # 4 ?;'!8 88 B KL
K =' #?' > '?;' D ' =@ '#?' =?#B ;' (# # ' < =A'
#B ' # = =A' ?!' #B ' ?<< ! ?=4 E #B' ?#B ;'K ;L
?= ' C!! @ =#8>' NC 8 !> 4 EB?! ' #B ' !?;' #B '
! #B!C88 !@B ;A =A' ?!' #B ;' !! @ ' B 88 D '# " ='
D>' #B ' 0?; ' B =@ 88?;' = ' =' B ' D =@ ' D>' #B '
/ ; =# ?!' #B ' ?<< ! ?=' !?;' #B '#><

4 %' = =# #B '% ;<' ?!' 2 B # C= >

' '(& *) &'0 +' = '0 + '%B ' U '
1 =A' = ' 3C = ' # 'E #B' @ ' = '@?=L
=# ?!' #B '& # # '?!' / ;8 < =# !?;' !C;#B ;' @8 ;L
=A' #B '%B ;#>' =>=#B' @# ?!' #B ' (@?= ' (! ?='
?!' #B ' @C;; =# / ;8 < =# (# #C# ' = ' + @8 ; '
#B # #B '$!# =#B' >' ?!' >' E ' =@ '#B ' # '
?!' #B '!?; ' @#4 = ' B 88 D ' =' 88 # < '@?< =A'
=' K8 @ '?!' #B '!?;< ;'% ;< '?!' 2 B # C= >4 #?' 88
!! @# 'EB # ? ;4 'E 88 '#?' <? =A

%' = =# / ; ?= A

' '(& *) &'0 +' = '0 + '%B ' U '
1 =A' = ' 3C = ' # ' ?=! ; =A' #B # D>'
#B '%E =#>' #B ; ' @# ?!' #B ' (@?= ' (! ?=' ?!

#B '@C;; =# / ;8 < =# @?=@ ;= =A' / #;?= A 4 *#'
' (# #C# ' = ' + @8 ; 4 #B # #B ' ; AB# ?!' #B '
% >= '?!'K ;?@B 4 EB ; ?!' / #;?= 'B '!?;< ;8>'
#B 'K; =# # ?='D>'#B # @# D?8 B 4 = 'EB @B'
% >= ' ; '=?# B ; # D8>' K?= 4 B?C8 'D>' ;L
#C ' ?!' #B # @# D 8?=A' #?' #B ' / #;?= 4 E #B'#B '
DC;#B =' E > ' ?!' #B ' = # ; ' (# K = 4 = '
?#B ; '#B ; =' FK; ! ' = '#B # #' ' C # = '
; ?= D8 '#B # #B ' 'D = ! # ' B?C8 'D ' F# = L
'#?' #B ' / #;?= '?!' 88 / ; ?= A ' = '?#B ;' L
= ! @ ' E #B?C# F@ K# ?=' +? '%B ; !?; 4 E #B'
X ' = '@?= =# ?!'#B '& # # '?!' / ;8 < =#
(# #C# ' ; = 'Q + @8 ; '#B # #B '!?; '; AB#
?!'#B '% >= 'A; =# '#?' / #;?= ' ' 4 B 88
D ' F# = '#?'#B '% >= '?!' 88 / ; ?= A ' = '
?#B ;' = ! @ ' = '#B # #B ' < ' B 88D 8?=A'#?'
#B ' / #;?= 4 E #B'#B 'DC;#B =' K @ ! ' ='#B ' '
@#4 = '!C;#B ;'E #B'#B 'DC;#B ='?!'K;? ! ?= '#?'
#E?' = # ; ' ='?= 'K ;?@B 4 !'#B ' ?<# ! ?='
B 88 #B ="'! ##' /;? =A' 8E > '#B # EB ; '#B '
D = ! @ 'K ;Q=' D =A' ' = # ;'B =A' ' C; 4
' ='K?! ! ?='?!'#B '!?; '% >= ' '% #C8 ;'
#B ; ?!4 B ' B 88 @?=# =C ' = ' ; < =' ='#B 'K?!L
! ?='#B ; ?!4 >' = 'EB 88 #B '!?; '/ #;?= '
B 88 ?D# =' ' C # = ' ; !?= B8 ' (# K = '#?' D '
<? ! ' = ' ##8 'CK?='B <'D>'#B ' ?<< !9
?='!?;' /8 =# # ?='?!' 1 ;" ' ='8 C' ?!' B ' RC'
; AB# #?'#B '% >= '\ ; D>'A; =# '#?'#B '/ #;?= '
' ' Z EB @B'; AB# B 88 B 'E #B?C# K; C @ '
?!' =>'?#B ;' K ; # '; AB#4 #B # #B ' '/ #;?= '
#B ;' B # '?;' < >'B '#?'#B ' '% >= 4 '
@?; '?!'#B '0 E

%' = =# #B '0?; '?!' (! ?='#B ;' 9
! =A' E #B'?K =' ??;

' ' (& *) &'0 +' = '0 + '%B '
1 =A' = '3C = ' # ' ?=! ; =A' #B # #B '
! =A'?!' C! ' 2 #B'?K ='+??; ' 'C!# ' ='
#B '(? ; A= 'C @ #?; '?!'?#B ;' # ?= 4 = '
#B # #B '8 " 'K; @# @ 'B ; 'E! 8D '?!' =# A '#?'
#B '0 A '+? 'E #B' @ ' = '@?= =# ?!'#B '
& # # '?!' / ;8 < =# (# #C# ' = ' ; = '%B #
='88 #>< '@?< =A4 88 88 ' K?;# ' + D # '
/;?D # ?= ' = '?#B ; ' ; 8 # =A' #?' K;?@ ! ' B 887
D '@?= ; 4 ; ?= ' ' = ' ?# 'D>'#B '
0?; '?!'(! ?='E #B'?K =' ??; 'EB ; 'K ;# 'K;?L
@C; #?; ' = ' 88 ?#B ; ' ; 'B ; D>' 88?E '#?' D '
K; ! =#4 '#B >'C '#?' D '!?;< ;8>' =' # < '?!'
+ D # 'DC# E #B' #B ' ; #; @# ?=4 #B # =' ?< '
K @ 86 @ '#B ' '0?; ' B 88 D ' 88?E '#?'
@ C! ' ; <? ' 88 K !!K= ' F@ K#4#B 'K ;# ' = '
#B ;' K;?@C; #?; 4 = '#B # =?' K ;!?='K; !C< '#?'
K " ' !# ;' #B '0?; 'D A ='#?' 'C= ;'#B '
K ='?!' <K; !?=< =#4 C=8 ! 'B 'D ' !>; 'D>'#B '
0?; ' = 'B ; D>' !8 ' = ' ==C88 ' 88 !?;< ;'
0 E ' = ' @# '?!'/ ;8 < =# KK? =# =A'?;' 88?E9
/'#B '0?; '#?' > 'E #B'@8?! '+??;

%' ; =# ! =A' ; < = 8 /;?@ ! '
E #B'?K =' ??; ' 4

% &'1*)' = '3 '&& (' J&(%*&(' = ' U '
& # # ' ?!' / ;8 < =# ?=! ; =A' #B # D>' #B '
>=# #B' @# / ;8 < =# &8 =#B' 1 =A'J < '
#B '(F#B4 *#' '(# #C# ' + @8 ; ' = ' ; = 4
#B # #B 'B 88 @@C # ?=4 ?= =A4 2 ; # 4 P2 #9
= ! ' = '?#B ;'/;?D # ?=' = '*= #;C@# ?='EB #9
?< ;'?!'#B '@;>< ' B 88 D ' 88 A ';?= '
= ' C@ '#?'#B ' ! W ' ='#B 'K; ! =@ '?!'#B '
K ;#>' @@C ' ='! @ '?!' C A < =# = '=?'?#B ;9
E > ' = ' # D =A'! ## = '@?= = =# !?;'#B '
0 A 4 #B # ; < = 88 %;> 88 4 EB @B' ; '?!' ?'
A; # <K?;# D ' ?8 <= ' = 'KCD8 @"' +? '%B ; L
!?; '(# #C# ' = ' ; = '#B # !# ;'#B ' + D # 9
@?=@ ;= =A' #B ' 8 =@ '?!' ; < = 88 0>D 88 4
+ > 4 "+&F@C8K # ?= ' < 'D>'#B 'K ;# ' = '
#B ;'K;?@C; #?; ' ; '@8? 4 #B # #B ' ?<< ! ?=9
;'?!'JC # @ ;>' = '?#B ;' ; < = 88 JC A ' B 88
>! '#B ' < 4 E #B'?K =' +??; 4 ='K; ! =@ '?!'
#B '/ == 88 = ' ! > ' = ' 88 ?#B ; 5 = '#B #
=?'K ; ?=4 =?;'K ; ?='K; C< '#?' K "4 C=8 !'B '
B ' !>; '?;' =# ;;CK# ?;' !#C;B' #B ' ?C;# D>'
4 =?>! '?;' =>'?#B ;' < == ;'?!'E >' C= ;'#B 'K ='
?!' D =A' =# #?' K; !?=' = '! !>= ' #'#B 'JC A '
!@; # ?=4 '#B >' B 88 #B ="'! ## =A4 =>' 0 E'?;'
C #?< '#?' #B ' @?=#; ;' B ; ?!' =?#E #B # = =A'
+ @8 ; =A' 8E > 4 #B # ='#B '@ '?!' K#4 C89
# ; 'Q #B '8 " '#B ' ' ?<< ! ?= ; ' < >'@?=L
# =C '#B ;'!?;< ;'C ' = '@C #?<4 D>'@ C! =A'; L
<? ' 88 K ; ?= 4 F@ K# K ;# ' = 'K;?@C; #?; 4 #
#B '8 =A'?!'#B 'K;?D # ?=4 '#B >' B 88 '@ C!

+' Q %*$* %* ' =' ! ?C; '
) ?;A '& ;8 '?!' '

' ' (& *) &'0 +' = '0 + '%B ' UUT
1 =A' = '3C = ' # ' = '&!# # ' ?!' / ;L
8 < =# # " =A' #?' #B ;' ?= ; # ?=' #B ' K # L
?=' A =' =' #?' #B <' D>') ?;A '& ;8 '?!' 89
88 0?; ' /; >' (88 Q@' =# ?= =A' #B # EB ; '
=' #B ' (@?= ' (! ?='?!'#B ' C;; =# / ;8 < =#4
EB =' #B ' ' & ;8 '?!' 8 88 E ' #B ;' 9
!D ' ?<< ! ?= ;4 #B ; 'K # #E?' @# ' =' B '
! ?<7 ' ?= ' ?!'#B <' &=# #C8 ' = ' @# ?!' , '
?8C# ?=' !8D8 =A' #B ' 0 = ' = ' ;?=>' ?!'
?=>< 8 4 #B4 = ' 8E ; 4 = '?#B ; 'K ;L
= =A'#?' B <'!;?<'#B ' ;?E= '%B '?#B ;' @# !?;'
!@ = =A' ?!' B ' $?;! C8#C; 4 EB @B' #E?' @# 4
8D # 2 ;; =# 'D>' ' K @ 88 0 ## ;' C= ;' B '
!#> 'B = 4 ?!'#B ' # 4 #B '!?C;#B' >'?!'JC= '
= '#B?C = ' (F BC= ; ' Q = = #>' > ; ' > #
8 # # =>'# < '#B ; !# ;' # < AB# @?< ' #?' D '
NC ;; 88 4 'K # EB ='B 'E ' ?8 ' ?<< ! ?= ;'
B < 8!4 = 'B '#B ' ?=8>'K?E ;'!;?;='B ' #>'
#?' # !>' = ' KK;? '#B ' @# 'K # ='#B # (!L
?='?!' / ;8 < =# = ' B D # =A' #B ' A 88

C#B?; #>‘#B ; #? ‘ = ‘#B #‘ # ‘ =?#?C; ‘#?‘#B ‘ / ;L
8 < =#‘#B #‘#B ‘ A;?C= ‘ = ‘; ?=‘EB ; CK?=‘
#B ‘ ‘#E?‘ @#‘E ; ‘K #‘E ; ‘C #‘ = ‘A?? ‘
%B ; !?; ‘ C<D8>‘ ; =A‘#B #‘B ‘); @ ‘ = ‘#B ‘
& # # ‘?!‘ / ;8 < =#‘< AB#‘ # !>‘ = ‘ KK;? ‘
#B ‘ !?; ‘#E?‘ @#‘ =‘#B ‘B 8‘ B ‘@8 C! ‘
=?; ‘ = ‘@?=# =#‘#B ; ?!‘ = ‘ @8 ; ‘#B ‘ < =‘
#?‘D ‘?!‘ 8! ‘A; #‘!?;@ ‘ #; =A#B‘ = ‘ !! @#‘ ‘ !‘
=>‘?#B ;‘K ;!?=‘B ‘D =‘#B ;‘ !# ‘ ?<9‘
<! ?= ;‘EB =‘#B ‘ < =‘E ; ‘K #‘ = ‘ K =! ‘
E #B‘#B #‘?;‘ =>‘?#B ;‘ D @#?=‘#B #‘ < >‘B ‘
<? ‘?;‘K; # = ‘ A = #‘#B ‘ < =‘ = ‘#B #‘
#B ‘ @#‘D ‘ F@ K# ‘ !;?<‘#B ‘ @#‘ (8 ?‘JC; ‘
‘#B ‘ < =‘ =‘ #‘ 8!‘<?; ‘!C88>‘D ; ‘%B ; !?; ‘
C;‘ ‘(? ; A=‘0?; ‘Q‘0 >‘ = ‘#B ‘& # # ‘
?!‘ / ;8 < =#‘ # !>‘ KK;? ‘ = ‘ ?=! ;< ‘#B ‘
!?; ‘ @#‘?!‘+ 8 ?8C# ?=‘ =‘! ?C; ‘?!‘#B ‘ ‘
) ?;A ‘& ‘?!‘ 8 '8‘EB ; ?!‘#B ‘# =?;‘!?88?E ‘
%‘ &+* ') ‘#B ‘%E =#>‘(@?= ‘ >‘?!‘
JC8>‘ = ‘%B?C = ‘(F‘BC= ; ‘ = ‘ >=# ‘> ; ‘
%B ‘& # # ‘?!‘ / ;8 < =#‘# " =A‘#?‘#B ;‘@?= L
; # ?=‘ ‘0 ## ;‘C= ;‘B ‘ #> ‘ ?> 88‘B = ‘
?!‘#B ‘ # ‘ #‘1 = =A#?=‘#B ‘!?C;#B‘ >‘?!‘JC= ‘
8 #‘D>‘K #‘EB ; D>‘ ‘ #>‘ C#B?; W ‘#B ‘
‘& # # ‘#?‘ ! ?8 ‘!;?<‘#B ‘ ;?E= ‘ = ‘K #; L
<?=>‘#B ; ?!‘#B ‘0 = ‘ = ‘& # # ‘?!‘) ?;A ‘
& ;8 ‘?!‘ 8 88‘B ‘ #> ‘ ?< < ! ?= ;‘!?;‘
?8 =A‘#B ‘K; ! =#‘(! ?=‘?!‘#B ‘@C;; =#‘/ ;8 L
< =#‘ == F ‘#B ; #?‘D>‘#B ‘!!?C;#>‘(@?= ‘ @#‘
?!‘#B ‘ / ;8 < =#‘ = ‘#B?C = ‘ (F‘BC= ; ‘
& AB#>‘!> ‘> ; ‘@?=!?;<‘#?‘ ‘ + @; #‘ = ‘(=L
# =@ ‘?!‘!!?;! C8#C; ‘K;?=?C=@ ‘ A = #‘B <4‘?=‘
#B ‘d#B ;# =#B-‘ >‘?!‘dJC= -‘ =‘#B ‘ ‘> ;‘
A = #‘EB @B‘(=# =@ ‘ = ‘ + @; #‘B ‘ ‘=?E‘
; #?; ‘K ;‘<? C<‘JC # # ‘D>‘ =‘ @#‘?!‘#B ‘
K; =#‘/ ;8 < =#4‘ ‘#?‘EB @B‘ ‘ #>‘B ‘
D =‘K8 ‘#?‘ + @8 ; ‘ =‘#B ‘ ‘0 ## ;‘B ‘
?> 88‘KC;K? ‘?!‘A =A‘D @"‘#?‘#B ‘ ‘& ‘
#B ‘ ‘0 = ‘ = ‘& # # ‘ =‘ ?‘! ;‘; ‘B ‘ 7>‘
< AB#‘B ‘K; # = ‘ ; AB#‘#B ; #?‘ = ‘?!‘ =# ;9‘
K? =A‘B ‘ ?> 88‘ =#‘#?‘#B ‘ @#‘?!‘+ ?8CL
?=‘#?‘D ‘K #‘#B ; CK?=4‘ =‘< == ;‘ !# ;‘< =L
?= ‘%B ; !?; ‘#B ‘& # # ‘?!‘/ ;8 < =#‘ =‘ ‘
C# !C ' ‘ @"=?E8 A < =#‘?!‘B ‘ !#> ‘JC # @ ‘
= ‘ ?> 88‘2 884‘ @8 ; ‘#?‘#B <‘#B ; = =#‘+? ‘
D>‘#B ‘# =?;‘B ; ?!‘(# #C# 4‘ ; = ‘ = ‘+ @8 ; 4‘
#B #‘#B ‘0 = ‘ = ‘ ;?= ‘?!‘ ?=>< '4‘ #B‘
= ‘ 8E ; ‘ = ‘?#B ;‘D 8?=A =A‘#?‘#B ‘ ‘
& ;8 ‘ = ‘ == F ‘D>‘#B ‘!?; ‘ @#‘B ‘ ! ?8 4‘
0 " ‘#B >‘B ; D>‘ ; 4‘ = ‘ B 88‘D ‘ ! ?8 ‘!;?<‘
#B ‘ ;?E=‘ = ‘ / #; <?=>‘#B ; ?!4‘ = ‘!;?<‘#B ‘
‘ @#‘ = ‘ 88‘?#B ;‘ @#‘?!‘ == F # ?=‘ = ‘
!;?<‘ 88‘ 8 C! ‘ = ‘ ?= # ?= ‘#B ; =‘@?=# = ‘
=‘ 88‘# < ‘ ?< =A4‘0 " ‘#B ‘ ‘& # # ‘ C#B?L
; W ‘#B ; #?‘ ‘ ‘ 4‘+? ‘$ = ‘+ @ < ‘ = ‘+ L
@8 ; 4‘#B #‘#B ‘ @#‘?!‘+ ! ?8C# ?=4‘ 8B 88‘ =?#‘D ‘
C= ; #?? ‘#?‘! 88‘C= ;‘?;‘D ‘@?<K; B = ‘ =‘
=>‘ @#‘(8 ?‘JC; 4‘#?‘D ‘K !#‘ =‘#B ‘?;‘ =>‘?#B ;‘
(! ?=‘?!‘#B ‘ C;; =#‘/ ;8 < =#‘DC#‘#B #‘#B ‘
,2 . -7‘ ‘1-+-/0‘-^:+-6,!0‘-^4-:3-5‘#B ; !; ‘ =‘21

< ‘ ?< =A‘&F#; @# ‘!C;#B‘?!‘#B ‘ @?; ‘?!‘
/ ;8 < =#‘D>‘< ‘ (@‘(CD @; D #C;‘%‘ C;= #‘ 8 ‘
A‘ ‘ 8!?‘#B ‘!?; ‘ @#‘?!‘ C@# ?=‘ =‘B ‘! L
?C; 4‘EB ; ?!‘#B ‘% =?;‘!?88?E ‘ %‘&+* L
') ‘#B ‘d% =#B-‘ >‘?!‘JC8>4‘ = ‘%B?CL
= ‘(F‘BC= ; ‘ = ‘=>= #>‘> ; ‘%B ‘& # # ‘?!‘
/ ;8 < =#4‘B =A‘@?= ; ‘ = ‘ @#‘?!‘ ?C;9‘
= ''?!‘#B ‘JC # @ ‘ ?C;#4‘+ # ‘#B ‘% =#B‘ >‘
?!‘ ? <D ;‘ = ‘#B?C = ‘(F‘BC= ; ‘& AB#>‘
!?C; ‘> ; ‘A = #‘) ?;A ‘& ;8‘?!‘ 8 884‘#B ; =‘
8 A= ‘) ?;A ‘0?; ‘ 8 884‘E #B‘ = ‘/;?@ ! ‘?!‘
%; !?=‘ = ‘!!?;! C8#C; ‘!?;‘#B ‘ ‘ ; == 4‘@?=L
= ‘ =‘#B ‘ ‘ @#‘?!‘ ?C;= 88‘8 ‘ = ‘ L
C@ ‘CK?=‘#B ‘ ‘d#B ;# =#B-‘ >‘?!‘JC= 4‘ = ‘
#B?C = ‘(F‘BC= ; ‘& AB#>‘!> ‘> ; ‘D !?; ‘#B ‘
8 # ‘1 =A‘J < ‘ = ‘#B ‘#B =‘/ ;8 < =#‘ A = #‘
#B ‘ ‘) ?;A ‘& ;8‘?!‘ 8 884‘E #B‘#B ‘+ @; # ‘
= ‘(=# =@ ‘?!‘!!?;! C8#C; ‘#B ; ?=‘A =‘ = ‘K;?L
=?C=@ ‘ = ‘ 8D #‘#B ; ‘D ‘ ‘8?=A‘0>D ''‘ =‘#B ‘
‘ K;?@ ! ‘ @?=# = =A‘ < =>‘ #;?@ ?C ‘ ; < 4‘
> #‘#B ‘ ?=8>‘K? =#‘ ‘!?C= ‘ ; 8 =#‘ A = #‘B <4‘
E ; ‘B ‘ ?;; K?= =A‘E #B‘#B ‘ D 88‘ = ‘A L
=A‘*=# 88 A =@ ‘#?‘#B <4‘EB =‘#B >‘E ; ‘ @#C 88>‘
=‘ D 88 ?=‘d #‘ ?#BE 'D; A 4‘ = ‘B ‘ @@ !9‘
?= ‘#?‘Q‘D =A‘ ;#‘Q‘K ;#‘?!‘#B ‘ @?=!K ; @>‘?!‘
#B ‘8 # ‘ 1 =A‘J < ‘B ‘K ;!?= ‘Q‘#B ‘K ;!?= ‘
Q‘A? ;=< =#‘?!‘ 1 =A‘ B ;8 ‘#B ‘ ‘) ?;‘B -‘
@?=@ 8 =A‘ = ‘=?# ; 8 =A‘#B ‘ < ‘ = ‘#B #‘
=?#E #B # = =A‘#B #‘ ‘#?‘#B ‘! ; #‘K? =#4‘#B ; ‘
E ‘ ‘K # # ?=‘ A =‘ =‘D>‘#B ‘0 >‘ 8 88‘
= ‘ ; ‘ =‘K8 =‘/ ;8 < =#‘ ; K; ! =# =A‘#B #‘
EB #‘B ‘ ‘#B ; =4‘B ‘ ‘D>‘ ?< < ! ?=‘!;?<‘
#B ‘ +C" ‘?!‘ ?=<?C#B4‘EB?‘B ‘ #‘#B #‘#><‘
= ‘ <K8 ‘ ?< < ! ?=‘!;?<‘B ‘ #>‘C= ;‘#B ‘
); #‘(884‘ = ‘#B #‘ ‘ ?K>‘?!‘#B ‘ ‘ ?< < !L
?=‘E #B‘#B ‘ ‘+ @8 ; # ?=‘E ‘K;? C@ 4‘ = ‘
?=8>‘ ; @# ‘CK?=‘#B ‘A;?C= 4‘ [%B #‘#B ‘
‘& ;8 ‘?!‘ 8 88‘E ‘ =?# ?<K ; =A4‘ = ‘
#B ; !?; ‘=?‘K # # ?=‘@?C8 ‘D ‘ ; @ ‘ =‘B ‘ L
B 8!4‘ = ‘#B #‘#B ‘!?; ‘ + @8 ; # ?=‘E ‘ <9‘
K #; # ‘ F‘K? #‘! @#?‘ = ‘ =?# CK?=‘? #B4‘EB @B‘
A;?C= ‘E ; ‘ 8#?A #B ;‘ ;; 8 =#4‘ =A‘#B #‘ 8L
D #‘#B ‘& ;8 ‘=?#‘@?<K ; =A‘< AB#‘B ‘B = ;L
‘#B ‘; @ =A‘?!‘ =>‘K # # ?=‘ =‘B ‘D B 8!4‘> #‘
#B ‘K # # ?=‘D =A‘; @ ‘E #B‘ # ‘!?; ‘ ; ! L
@ # ?= ‘ @#C 88>‘K;? C@ 4‘ = ‘#B ‘ ?= @ =@ ‘?!‘
#B ‘/ ;8 < =#4‘#B ‘A; # ! ‘?!‘#B ‘1 =A ?<‘
#B ; D>‘@?= =@ =A8>‘*= #;C@# 4‘#B >‘@?C8 ‘=?#
=‘0 E‘?;‘ ?=4‘= A8 @#‘#B ‘ < ‘ = ‘ ‘#?‘#B ‘
@?= ‘ ' A =@ ‘ ,Z‘#B #‘#B ‘ + @8 ; # ?=‘E ‘
A =‘F‘K? #‘! @#?‘ = ‘ =?# CK?=‘ #B4‘> #‘ =A‘
#‘@?C8 ‘=?#‘D ‘ => ‘#?‘D ‘#B ‘ + @8 ; # ?=‘?!‘
#B ‘+C" ‘?!‘J ?=<?C#B4‘ !# ‘ #‘#B #‘# < ‘E #B‘
B ‘* * #>‘ ?< < ! ?=‘ ‘ 4‘#‘E ‘ ‘ C!! L
@ =#‘ =@ ‘ =‘#B ‘ ‘< ## ;‘ K @ 88>‘ =@ ‘
#‘E ‘=?#?=8>‘=?#?C;‘#?‘ 884‘DC#‘ 8 ?‘# # !> ‘D>‘
#B ‘2 #= ! 4‘#B #‘ =>‘ ! A‘ =#‘#‘#B #‘# < ‘
#?‘#B ‘ D 88‘E ‘ ?=8>‘#?‘; NC ; ‘#B <‘#?‘8 >‘
?E=‘ ;< ‘ = ‘@?< ‘ =‘#B ‘1 =A‘2 884‘ = ‘
! ; ;‘*#‘E ‘ -4!2+-5‘D>‘"7-‘?!‘31-‘H%37-6,-,

ʻ ʻ ' *=) ʻ 3ʻ ?)B<

#B ʻ #B # ! A ʻ E ʻ # #B ʻ < ʻ # < ʻ =# D>ʻ ?; ;ʻ ?!ʻ #B ʻ +C" ʻ ?!ʻ ?=<?C#B4 DC# #B ʻ K ;# ?!ʻ #B ʻ + K?! # ?=ʻ E ʻ ; !C ʻ #?ʻ D ʻ < ;" 4 ʻ B #Bʻ D =ʻ=?Eʻ C!! @ =#8>ʻ *= #;C@# 4 0 " ʻ # ʻ 8 ?ʻ =?Eʻ < ʻ KK ; =#4 #B # #B ʻ 1 =Aʻ D !?; ʻ9#B ʻ +C" ʻ?!ʻ ?=<?C#BTʻ @?< =Aʻ!;?<ʻ0?= ?=ʻA ʻ 2 ;; =# !?;ʻ #B ʻ ʻ ! A ʻ D?#Bʻ #?ʻ #B ʻ +C" ʻ = ʻ #?ʻ #8 ʻ ʻ?!ʻ 8 88ʻ = ʻ ʻ#?ʻ #B ʻ ?#B ;ʻ K? =# 7%B ʻ ʻ& ;8 ʻ?!ʻ 8 884 B ʻ @@ ! ?=ʻ #?ʻ #B ʻ ?= K ; @>ʻ A = # #B ʻ 8 # ʻ 1 =Aʻ J < 4 = ʻ#B ʻK ; ?=ʻ = ʻ)? ;=< =# ?!ʻ 1 =Aʻ B ;8 4 ?;ʻB ʻ @?=@ 8 =Aʻ = ʻ =?# ; 8 =Aʻ #B ʻ < 4 88ʻ K; # = ʻ #?ʻ D ʻ K;? =4 E ʻ K; ! =# # ʻ < # =A† =ʻ 0?= ?=4 EB ; ʻ #ʻ E ʻ !@?C; 4 = ʻ ?=8>ʻ =ʻ <D AC?C ʻ = ʻ ;"ʻ % ;< ʻ ?!ʻ #B ʻ < = ʻ !?;ʻ (@C; =Aʻ#B ʻ /;?# # =# 8 A ?=4 = ʻ #B ʻ 0 E ʻ = ʻ8 D ;# ʻ ʻ ʻ1 =A ?<4 =ʻ@ ! ʻ?!ʻ #B ʻ (C?9 @ ! ?=ʻ?!ʻ 1 =Aʻ J < 4 #B =ʻ ?=8>ʻ +C" ʻ ?!ʻ ?; @ʻ = ʻ ʻ (CD @#4 ʻ 8!?ʻ#B # =ʻ #B ʻK? =# E ʻ=?# 8 E!C88>ʻ K;? =4 #B ; ʻ D =Aʻ =?ʻ @8 ;ʻ @?=@C;; =Aʻ E #= 8 ʻ =ʻ #B ʻ @ ! 4 DC# #E?ʻ?!ʻ#B; ʻE #= ! ʻ # = ʻ @@C ʻ !?;ʻ #B ʻ < ʻ #>< 4 = ʻC= ;ʻ ʻ #B ʻ # ;;?;ʻ #B ; ?!ʻ C=K ; ?= ʻ = ʻD>ʻ #B ʻ K;?L D # ?=ʻ CKK8> ʻD>ʻK;? C@ =Aʻ#B ʻ # # <?= ʻ ?!ʻ 2 #= ! ʻ D =#4 = ʻ ?= ʻ ?!ʻ #B ʻ # !# <?= ʻ† =#8>ʻ K;? C@ ʻ = ʻ < ʻC! ʻ ?!ʻ A = # #B ʻ KCD8 @"ʻ ! #Bʻ A =ʻ =ʻ #B ʻ @?=#; ; ʻ ʻ8 " E >ʻ #B # #B ʻ < ʻ& ;8 ʻD =Aʻ !?;ʻ #B ʻ # < ʻ ?C# ?!ʻ #B ʻ ?C=#;>4 = ʻ 8 ?ʻ =C=@ ʻCK?=ʻ#B ʻ!?; ʻ @#ʻ ?!ʻ ?C< 88 4 #B ; ʻ E ʻ =?ʻ ; 8 F # ?=ʻ ; ʻC=# 88ʻ ʻ ! Eʻ >ʻ D !?; ʻ #B ʻ ?<K ; =@ 4 = ʻ B ʻ B ʻ = ;ʻ#B ʻ !! ;ʻ ?!ʻ =ʻ *= <= #>4 =?;ʻ E ʻ !?;ʻ#B ʻ # < ʻ =ʻ ?K =ʻ D 88 ?=4 !?ʻ #B # B ʻ B ʻ=?# #C#C ʻ @@ ! C ʻ 88ʻ EB @Bʻ E ; ʻ C!! @ =#8>ʻ ; !> ʻ =ʻ K; ! =@ ʻ ?!ʻ#B ʻ & # # ʻ ?!ʻ / ;8 < =# D>ʻ K;? C@L # ?=ʻ = ʻ ; =Aʻ ?!ʻ#B ʻ !?; ʻ @#ʻ?!ʻ ?C< 88ʻ = ʻ + @; # ?!ʻ !! ;! C8#C; 4 + ?! # ?= ʻ ?!ʻ #B ʻ 2 #= ! ʻEB ; CK?=ʻ #B ʻ < ʻE ʻ !?C= 4 = ʻ B 88ʻ K;?@ C; ʻ #B ; =ʻ #?A #B ;ʻ 2 #Bʻ #B ʻ + K?! 9ʻ # ?= ʻ ?!ʻ#B ʻ 2 #= ! 4 =?Eʻ C@ ʻ =ʻ / ;8 < =#4 = ʻ?#B ;ʻ *= #;C@# ?= ʻ K;? C@ ʻ ; ʻ = ʻ 4 0 " ʻ !?;ʻ #B ʻ <?; ʻ 8 @;ʻ = ʻ C; ʻ ! ;# =Aʻ ?!ʻ #B ;ʻ # ʻ K 88ʻ C#B?; #>ʻ =# ;K?= ʻ =ʻ #B ʻ< ## ;4 #B ; ʻE ʻ K;? C@ ʻ = ʻ ; ʻ =ʻ / ;L 8 < =# ʻ0 ## ;ʻ!;?<ʻ#B ʻ 1 =A ʻ #>4 !ʻ#B ʻ # =?;ʻ !?88?E =Aʻ (CK; @; D #C;ʻ 2 88 <ʻ ʻ >ʻ 0?; ʻ = ʻ) =#8 < =4 2 ʻ ;ʻ *=!?;< 4 %B #) ?;A ʻ& ;8 ʻ?!ʻ 8 88ʻ ?C;ʻ K; ! =# ?<< 8 ?= ;ʻ !?;ʻ B?8 =Aʻ#B ʻ (! ?=ʻ?!ʻ / ;8 < =#4 ʻ#?ʻ *=# =# = ʻ ; ʻ = ʻ @# ?=ʻ?!ʻ C@# ?=ʻ D !?; ʻ >?Cʻ?!ʻ ʻ + @; # = ʻ (=# =@ ʻ?!ʻ !!? ! C8#C; ʻK;?=?C=@ ʻ A = # B <ʻ =ʻ #B ʻ / ;8 < =#4 = ʻ#B?C = ʻ (Fʻ BC= ; ʻ & AB#>ʻ !> 4 !?;ʻ 88 A ʻ ?;; K?= =Aʻ E #Bʻ #B ʻ D ' ʻ # ?#BʻE 88ʻ ; A 4 = ʻ D =Aʻ ;# = ʻ / ;# ?!ʻ #B ʻ /8?## = ʻ ?= K ; @>ʻ # 0?=L ?=ʻ *=ʻ #B ʻ> ;ʻ = ʻ#B?C = ʻ (Fʻ BC= ; ʻ& AB#>ʻ #B; 4 EB @Bʻ @# ?=ʻ D =Aʻ #?ʻ D ʻ <? ʻ # B ʻ?E=ʻ *= # =@ ʻ A = # C;ʻ !! @ ; ʻ?!ʻ (# # 4 #?ʻ D ʻ#B ; L =ʻ @ 88 4 #?ʻ K; =# =>ʻ &F@ K# ?=ʻ #B # =?Eʻ ?;ʻ B ; !# ;ʻ < >ʻ #B =@ ʻ ; ! ʻ = =# #B ʻ !?; < 8 #>ʻ ?!

#B ʻ K;?@ =A4 #B ʻ ʻ& ;8 ʻD =Aʻ?C;ʻ ?<< !9ʻ ?= ;ʻ!?;ʻ#B ʻ# < ʻ 2 ʻ B ʻ#B?CAB# ! ##D>ʻ#B ʻ K; ! =# ʻ =?# ?=8>ʻ #?ʻ K =! ʻ E #Bʻ #B ʻ !C< <?=9ʻ =Aʻ?!ʻ 88ʻ?C;ʻ !! @ ; ʻ?!ʻ (# # 4 = ʻ#?ʻ @8 ; ʻ#B # =>ʻ # # ?=ʻ ?;ʻ *=# < # ?=ʻ #?ʻ D ʻ < ʻ#?ʻ =>ʻ?!ʻ #B <4 < >ʻD ʻ ?= ʻ =ʻ C@Bʻ< == ;4 = ʻ =ʻ ʻ B?;# ʻ#>< ʻ ʻ> ʻ !B '' C A ʻ < #4 DC# 8!?ʻ #?ʻ C#B?L ; W ʻ >?Cʻ #?ʻ ! C ʻ !?;#Bʻ #B ʻ ʻ (C< <?= 4 = ʻ #?ʻ B ;ʻ !@C! ʻ = ʻ ! = 88>ʻ # ;< = ʻ =ʻ #B ʻ ʻ @# ?=ʻ = ʻ C ʻ =ʻ #B ʻ < ʻ ?;#4 = ʻ ʻ !! @#CL 88>4 ʻ !ʻ E ʻE ; ʻK ;!?= 88>ʻ K; ! =# <?=A # >?C4 *=# ;K?! =Aʻ B ; D>ʻ !C88>ʻ?C;ʻ ?> 88ʻ =# #?ʻ =>ʻ @# ?;ʻ + @; # >?Cʻ ! 88ʻ < " ʻ?;ʻK ! ʻ =ʻ #B ʻ < #L # ;4 = ʻ 2 ʻ KK? =# >?Cʻ #?ʻ @ C! ʻ @?; ʻ #B ʻ?C;ʻ 0 ## ;ʻ =ʻ #B ʻ ??" ʻ ?!ʻ / ;8 < =# !?;ʻ >?C;ʻ C!! L @ =# 2 ;; =# = ʻ ?ʻ 2 ʻD ʻ >?Cʻ B ;# 8>ʻ$; L E 88ʻ) =ʻ # ?C;ʻ ?C;# # 1 =! =A#@<ʻ #B ʻ!?C;#B4 >ʻ?!ʻJC= ʻ = ʻ#B?C = ʻ(Fʻ BC= ; ʻ = ʻ >=# ʻ > ; ʻ = ʻ?!ʻ?C;ʻ A= ʻ#B ʻ (@?= ʻ> ;ʻ (CD @; 9ʻ D #C;ʻ 2 ʻ ʻ = ʻ =Aʻ D>ʻ #B ʻ 8 <ʻ ?!ʻ AB#4 @?=# = ʻ =ʻ#B ʻ + @8 ; # ?=ʻ?!ʻ#B ʻ& # # ʻ A = # #B ʻ 8 # ʻ 1 =Aʻ J < 4 *#ʻ ʻ FK; ! 8>ʻ K;? > 4 #B # #B ʻ @ C! =Aʻ !!?;! # ʻ K ;!?= 4 ?=ʻ E "ʻ = ʻ !; ?8?C ʻK; # =@ 4 CK?=ʻ 8 < ʻ = ʻ ! @# ʻK;?L D # ?=ʻ ʻ@?=#; ;>ʻ#?ʻ 0 E4 = ʻ#B # 88ʻ [C@Bʻ !!?;9ʻ ! C8#C; ʻ ?CAB# #?ʻ D ʻ @?= ; ʻ = ʻ#B ʻK ; ?=ʻ ʻ ; ; ! ʻ %B ; !?; ʻ #B ʻ 1 =Aʻ = ʻ 3C = ʻ # 4 E #Bʻ @ ʻ = ʻ ?= =# ?!ʻ #B ʻ ʻ & # # ʻ ?!ʻ / ;8 < =# +? ʻ B ; D>4 Fʻ JC # # ʻ C@ 4 @ = 4 #; #4 ! ʻ = ʻ ==C8 ʻ #B ʻ !?; ʻ (=# =@ ʻ = ʻ + @; # ?!ʻ !!?;! C8#C; 4 K;?L =?C=@ ʻ A = # #B ʻ ʻ) ?;A ʻ& ;8 ʻ ?!ʻ 8 884 E #Bʻ ʻ) !# ʻ ?!ʻ !!?;! C8#C; ʻ = ʻ K; ! =# # ?=ʻ ?;ʻ &!@B #4 = ʻ 88ʻ?#B ;ʻ AB# ʻ ?;ʻ + ʻ !?88?E =Aʻ ?;ʻ #B # < >ʻ!?88?Eʻ #B ; CK?=ʻ ʻ 8 ?ʻ #B ʻ !?; ʻ @#ʻ ?!ʻ ?C< 88ʻ E #Bʻ 884 #B # B ʻ !?88?E ʻ ?;ʻ < >ʻ !?88?Eʻ ?=ʻ #B ʻ < ʻ = ʻ + @8 ; ʻ #B ʻ ʻ (=# =@ ʻ = ʻ + @; # ?!ʻ !!?;! C8#C; ʻ ; ʻ @#ʻ ?!ʻ ?C< 88ʻ #?ʻ B ʻ D =ʻ !;?<ʻ #B ʻ D A == =A4 #?ʻ D ʻ =?Eʻ = ʻ =ʻ ''ʻ # < ʻ @?< =Aʻ ?> ʻ =C88ʻ = ʻ ?!ʻ =?ʻ 88ʻ #; =A9#Bʻ ?;ʻ !! @#4 K?= =Aʻ = ʻ ; L #?; =Aʻ#B ʻ ʻ& ;8 ʻ#?ʻ B ʻ 8?? ʻ& # # ʻB ; # D8 ʻ = ʻ<? D8 ʻ$ < ʻ ?=?C;ʻ = ʻ + A= #>ʻ A = # #B ʻ < ʻ =ʻ *=# A;C<ʻ K ;ʻ <? C<ʻ JC # # ʻ = ʻ @"8>" ʻ = ʻ 8! ʻ !; 8>ʻ =ʻ 88ʻ; K @# 4 ʻ !ʻ#B ʻ ʻ + @; # = ʻ +??<ʻ ?!ʻ !!?;! C8#C; ʻ = ʻ @#ʻ ?!ʻ L ?C< 88ʻ D? ʻ < =# ?= ʻB ʻ = ;ʻD =ʻK;?=?C=L @ ʻ = ʻ #B ;ʻ !# ʻ E #Bʻ @ ʻ = ʻ @?= =# !?; ʻ @ = ʻ #B ʻ @#ʻ ?!ʻ == F # ?=4 ?= ʻ%B?CL = ʻ (Fʻ BC= ; ʻ = ʻ & AB#>ʻ ! ʻ == F =Aʻ #B ʻ ʻ & ;8 ʻ B ʻ &!# # ʻ #?ʻ #B ʻ ;?E= ʻ = ʻ ! ; ;ʻ = ʻ!?;ʻ !CK ; D?C= =@ ʻ + ? ʻB ; D>ʻ + ! ?8 ʻ#B ʻ ʻ & # # ʻ !;?<ʻ #B ʻ ;?E=4 =ʻ B ʻ?E=ʻ ! ?C; 4 K?= =Aʻ = ʻ =# A; # =Aʻ B <ʻ #?ʻ B ʻ!C88ʻ; AB#ʻ = ʻK?! ! ?=ʻ?!ʻ#B ʻ < =4 ʻ !ʻ#B ʻ ʻ (=# =@ ʻ ?!ʻ !!?;! C8#C; ʻ = ʻ @#ʻ ?!ʻ ?C< 88ʻ B ʻ = ;ʻ D =4 = ʻ#B # =?#E #B # = =Aʻ?!ʻ =>ʻ?#B ;ʻ AB# ?# + ʻ#B # < AB# B ʻD =ʻ < ʻ?;ʻA; =# ʻ =ʻ ! ?C; ʻ?!ʻ =>ʻ?#B ;ʻK ; ?=ʻ #?ʻ B ʻ K; C @ ʻ ʻ 8 ?ʻ %B ;ʻ !# 4 E #Bʻ@?= =# !?; ʻ + @8 ;

#B # # B 88 D C< #?#B & ;8 #?; K # I => ?<K?! # ?= ?; (C< ?!<?= >K > #B ; D> B < 8!4 ?; => ?#B ; K ; ?= !?; B <?=#B @@?C=# ?!#B ! & @B # = $?;! C8#C; 4 ?; !?;) !# #B ; ?!#?B ?E= ?; B 8 ; = D B??! 4 ?; !?; ?D# = =A < ! ?= ?!#B < K; # ;>! !;?<#B K ; ?= @ ; #B ; ?!4 ?; *=9 #;?< ##?; #B ; E #B4 EB? ; B ; D> @8 ; #? ; !?C= #B < =4 E #B #B *=# ; # #B ; ?!4 =@ ;# < ! = #B?C = (F BC= ; & AB#> AB# > ; 8 ?#B # 88 ?= = ?#B ; (@CL ; # A; =# D> B <4 ?; => ?#B ; !?; B <?=#B @@?C=# !?; 4 = EB # ? ; % ; < #B > < > D @?=@ = #?; EB?< ? ; A; =# ; = B 88 D ?> = =C88 ; =A#B B ; #B ; L ?!#?; 8 ; CK = A D @B #B < #?; D @ =L @ 88 = #B # 0 ## ; D ; @# !?; #B # !! @# !! ; = %B ; # = & # # ?!/ ;L 8 < =# (# #C# = ; =#B # #B K; ! =# @# B 88 B ! 88 #; =A#B !?;@ = !! @# ?! KCD9 8 @"" 0 E4 =! ?C; ?!#B & ;8 ?!8 88 = ?#B ; !?; = 8 #8> #B # #B K; ! =# @# = #B D> #B @# !@ = =A !!>= = !!?;9 ! C8#C; 4 = #B ?#B ; ?!#B # 4 #B !?;! C8# K ; ?= ; ; #?; 4 = #B # #B & ;8 = B :+-5-4-6,"+,B ! #B!C88> = @?=!# =#8> 251-+5

#?#B?> 88 *=# ; # = / ;?# # =# 8 A ?=4 EB = =A; # # =A ; +? #B ; !?; E #B C= L = <?C @?= =# @?<< = #B & ;8 #?# #B ; !# !! ?C;4 !?; K ; # ?= ?!B 0?! 4 C # = = =< == ; !?;

+ & & + #B # #B & ;8 ?! 8 88 C A = # #B & ;8 ?!/ ;#B D @?= ; D !?; => K; # C! EB # ? ;

,1 * +, 7 D 0 & 1 * +, * &0

% & @# !?; ?<<C= @ # ?= ?!%; #?#8 [C;AB ?! A 8 #> = ;?=> D =A ; E #B #B ?=#; @# D #E F# #B C;AB ?> 88 = #B ; A =#4 ; # !> = #B @#4 !# ; *D< < = L < =# 4 #B ; E / ;?# !# # ?= ?!! ; D> J?B= = ;!?= ?<< ! ?= ;4 !?; #B C;AB ?!)8 L A?E4 #B # #B @# < AB# D DC# K; C @ ?!#B K; 8 A ?!#B C;AB ?!)8 A?E4 = #B 8 " / ;?# # # ?= ?!! ; !?; #B ;@B =# ?!#B C;AB ?! & =DC;AB = #B C;AB ?! (# ;8 =A4 = #B = #B @# < = E KC# #?#B ?# = KK;? =

+ +> 0 & - ,+)+6 6 - + +, %* . +9 > *0& +, > *+ Q-

+ & & + #B # #B @# !?; ##8 =A #B / @ ?!#B BC;@B D KCD8 B = K; =#

, - ,+* 0 & < - +, &)& *-& + / <* .0

% &* *= @#< =# # #B *= # =@ ?!#B ; L # ?@ # !?; AB %; !?= A = # =;> 8 / >= K; !?= ;4 E @ 88 4 = #B *= @#L < =# ;

E * I H 7 0

/ &%*%* ?!! ; !?; #B / == 88 #E @ ; = #B 0?; ?@ # 4 = #B ?@ # !?; #B / == 88 D =A B ; ?= #B A;?C= ; K; =# 4 #B ; E = &F@C8K # ?= A; =# #?#B / == 884 #? # B 2 #= ! A = # #? <?;;?E4 = #B / == 88 =#B < =# < ; < = #?K; ?=

% &/ ;8 < =# ?C;= # 88 #? <?;;?E # % = 8?@"" =#B $?; =??=

%& + ') 4

^ .

/ & (= #B ?88 @ 88

R 7-73 I 7 207-0

" * * " #B # 8 / >= K; ?= ; D D;?CAB# !;?<#B %?8D??#B ?!& =DC;AB D !?; #B / ;8 < =#

% &* # AB ?<< ! ?= ; &F@C #B D =@ ?!#B 0?; ;= 4 = ; A ; ?!#B ?=# =C =@ ?!B *= K?! # ?=

6 "+5 I * -^48,-50

-4" . . -7W 523%"7 %7 62Q"+, "6 31- 2+!- "6 !-742%+7

% &* # AB ?<< ! ?= ; = & # # ?! / ;8 < =# ?= ; =A #B # #B & ;8 ?!)8 =9 @ < K > #?#B ; # %B C;> = @?<L K # =# K; @ !?; #B !!?;! C8#C; A !# #?B <4 = #B # D> #B @# !@ = =A !!>= = !!?;9 ! C8#C; 4 = #B ?#B ; ?!#B # 4 #B !?;! C8# K ; ?= ; ; #?; 4 = #B # #B & ;8 = B :+-5-4-6,"+,B ! #B!C88> = @?=!# =#8> 251-+5

*% D =A <? #B # C# !C86 0 ## ; B?C8 D =# !;?<#B / ;8 < =# #?B #>4 #B ?<L < ## !?; <;8> = < D> #B #B; & # # 4 #B 0?; ;< @B '#B 0 ; ?!) ; =# = (; 2 88 < < 8#?=4 E ; A; CK?= #? ; E -33-+ !?; 3123 !! @#

, = * + / ?* & 8 0

ʻ ʻ ʻ

B?C8 'B ' ?!' #B ;' ==C 88; =# 'C=# 88' #B >' E ; '
K?! ! ' = '8 #8>' #B 'B '!!?;D ; =@ ' #B #4' #B '
' !$?;! C8# ' K ;!?= 4' = ' #B ' C# ?= ; ' !?;'
#B ;' + D# ' ?CAB#' #?' B 4' '#?' K; =@ K 88' (C< 4'
=' < == ;' < =# ?= ' =' #B ' ' @#' = '%B ;'
4' E #B' @ ' = ' @?= =#' !?; ' ?=# L
=C ' #B ' !?; ' ?<< ! ?=' E #B' K?E ;' #?' #B <'
?;' #B ;' !?;< ;' 3C?;C<' #?' ?A=?!@ ' #B ' ! '
K = =A' D !?; ' #B ' !?;< ;' ?<< ! ?=4' ' 8 ?'
#B ' FK; ! 8>' ; ! ;; ' D>' #B ' ' @#' #?' #B ;'
+ # ;< = # ?=' = ' #?' K?;#' #B ;' JC A < =#'
#B ; = =#' #?' #B ' = F#' (! ?=' ?!' #B 4' ?;' =>' ?#B ;'
=!# =A' / ;8 < =#' E #B?C#' K; C @ ' 8E > ' #?'
#B ' K?;#' 8; >'@?=@8C 'D>' #B ' !?;< ;' ?<L
< ! ?=' #?' D ' ; @ ' EB =' #B ' / ;8 < =#' B 88'
#B ="' ! ## ' 8 ?4' E #B?C#' K; C @ ' #?' =>' EB?'
B ' KC; C ' D !?; ' #B ' ' ?<< ! ?=4' EB #'
< >' D ' KC;!C ' D !?; ' #B ' 0?; ' ?!' (! ?=4' #?'
8 !# #B ;' @# ?= ' = ' KC;!C ' #B ' < 'D !?; ' #B '
0?; ' ?!' (! ?=' =?#E #B # = =AP'#B #' #B ' '
KC;!C# ' D !?; ' #B ' ' ?<< ! ?=' < >' D '
D;?CAB#' #?' ' K?;#4

%' =' ! ?C; ' ?!' #B ' %?E=' ?!' & =L
DC;AB' !?;' =' *<K? # ?=' ?= 8 ' Q ;

UV' ' ' (& *) &' 0 +' = '0 + ' #B '
1 =A' = ' 3C = ' B8 # ' = ' #B ' & # # ' ?!'
/ ;8 < =#' # " =A' #?' #B ;' ?= ; # ?=4' #B 'A; #
+ D# C ' D>' #B ' %?E=' ?!' & =DC;AB4' EB @B'
K ;#8>' D>' #B ;' ' = ;# " =A ' !?;' = ' (; @ '
?= ' #?' #B ') ? ;=< =#' CK?=' ; 88' ?@@ ! ?= 4'
= ' K ;#8>' #B;?CAB' ?#B ;' C! ' B #B' ; ! =' #?'
#B #' B AB#4' #B #' #B ' ?<<?=') ?? ' ?!' #B ' '
%?E= ' ' =?#' C8 @ =#' #?' K >' #B ' K=C ' ; =#'
#B ; ?!4' <C@B' 8 ! ' #?' !; >' = ' !@B ;A ' ?' A; #'
' C;#B =4' = ' ' '%?E=' ?!' & =DC;AB' D =A'
#B ' #;?K?8 # =' ?!' #B ' 1 =A ?<4' EB @B' #B ;'
' !?;' #B ' ?=@ ' ; ' ; ?8 ' !?;' < =>' A?? '
= ' E AB#>' ?= ; # ?= ' #?' B 8K ' = ' ; 8 '
=' #B ' F#; ?; = ;>' < == ;' %B ; !?; ' #B ;' 8 9'
4' E #B' @ ' = ' @?= =#' ?!' #B ' '& # # '
?!' / ;8 < =#' +? ' B ; D>') ') ; =#' = ' + !9'
K?= ' #?' #B ' '%?E=' ?!' & =DC;AB' = ' ?<L
<C= #>' #B ; ?!4' = '#?' #B ' A #; # ' = '%?E='
?C=@ 88' ?!' #B ' < 4' = ' #B ;' (C@@ ! ?; ' =' !! @ '
!?;' #B ;' C! ' = ' D B??! ' #B ' *<K?! # ?=' ?!' #E?'
K == ' (@?## ' X? ;' = ' D? ' #B ' 1 =A ' == F '
&F@>! 4' = ' # ?= 86' F@>! ' <K? ' =' #B '
(! ?=' ?!' / ;8 < =#'` CK?=' #B ' K>=# ' ?!' "' 8 '
= ' ; ' #?' D ' #B ;' D;?E=' ?;' =D;?CAB#' ?;'
= '#?KK ' = ' ?8 ' E #B =' #B ' '%?E=' = '
(CDC;D ' = '0 D ;# '#B ; ?!' [#B ' =?=A # 4'
?C#B' = ' =?;#B' 0 #B 4' 2 #K?;#4' /?## ;9; E'
= '/8 =#' = '#B ' ?#B ;'K ;# = =# ' #B ; ?!' *<9'
K?! =A' = ' ; = =A' #B ' < ' #?' D ' K > ' #?'
#B ' '%?E=' = ' A !#; # ' = ' ?C=@ 88' #B ; L
?!' D? ' < =# ?= 4' D>' #B ' ; E ; 4' =# = ; '
(88 ; ' ?;'%?K # ; ' ?!' #B ' ' 8 ' = ' ; ' =

#B #' C; =A' #B ' K @ ' ?!' ! !# 8 ' > ; ' = ' ! ;L
#B ;' C; =A' #B ;' # 'K8 !C; 4' =?#' F@ L
=A' #B ' K @ ' ?!' #B ;#>' > ; 4' ' = ' C #' K @ ' = '
< ' @ 8@C8 # ' !?;' #B ' K >< =#' = ' !@B ;A ' ?!'
#B ' %?E= ' + D#4' D A == =A' #B ' ' *<K? # ?='
!;?<' #B ' ! ; # >' ?!' JC8>' = F#' #?' @?< 4' = ' ?'
!C;#B' #?' @?=# =C ' C; =A' #B ' EB?8 ' > ; ' = '
< ' D? ' < =# ?= 4' = ' #?' D ' K > ' CK8 !# '
 = ' A #B ; ' E "8>4' <?= #B8>4' NC ;# ;8>4' ?;'
?#B ;E > 4' ' #B ' !?; ' A #; # ' = ' %?E='
 ?C=@ 88' B 88' #B ="' ! ##' #?' K; !@; D ' = ' ?; ;' &FL
@ K# =A' ?=8>' !;?<' #B ' @#4' '' 8 ' = ' ; ' #B #'
B 88' D ' D;?E=' =' #B ' ?C=#;>' E #B?C#' #B ' 0 D ;L
' ?!' #B ' C;AB' D>' ; #?; ' ?=' #B ;' ?E=' 0 = 4'
 = ' =D;?CAB#' D>' #B <4' #B >' =B D # =A' !?;' #B '
#>< ' E #B =' #B ' %?E=4' #?' D ' @?= C< ' !?;' #B '
C! ' ?!' #B < 8 ' = ' #B ;' ! < 8 ' 88 = ;8>' = '
8 ' F@ K# =A' 88' 8 ' = ' ; ' = ' E #B ='
#B 'K; @ =@# ' ?!' #B ' / 8 @ ' ?!' 8>;C B?C! 4' = '
 #8 ' ?!' & =DC;AB' !;?<' #B ' *<K?! # ?=' D? '
< =# ?= ' = ' #' ' B ; D>' + @8 ; ' #B #' #'
 B 88' D '8 !C< ' #?' #B ' '* A #; # ' = ' ?C=L
@ 86' ?!' #B ' ' C;;?CAB' #?' ! ;< ' = ' ##' =' % @"'
#B ' ' *<K?! # ?=' D>' E >' ?!' KCD8 @"' ?EK4' #?'
#B ' D # =# A ' !?;' 8 ' < =>' > ; ' = '# ;< '
 ' B 88' D ' A; ' #?4' EB @B' #B >' ; ' B ; D>'
?D8 A ' #?' ? ' #' !B ' AB#' ?!' #B ' 0?; ' ?!' #B ;'
 #> ' / ; >' ?C=@ 884' ?;' !C@B' '#B >' B 88' K9'
K?>=#' / ;? =A' 8E > ' #B #' #B ' !?; ' *<K?! L
?=' D ' KK8> ' 8 " ' #' ' B ; D>' <? #' #; @#8>'
 # = # 4' KK? =# ' = ' KK8> ' !?;' K >< =#' ?!'
#B ' ' %?E=T' + D# ' 8; >' @?=#; @# 4' = ' !?;'
=?' ?#B ;' = ' ?;' C ' = ' ='#B ' < == ;' ' !!D;'
K >< =#' 8 ' E 88' ?!' #B ' ==C 8D =# ' ?!' #B ' '
+ D# 4' ' ?!' #B ' K; =@ K 86' (C< 4' !?;' #B ' K @ ' ?!'
#B ' ! ; #B; '> ; ' ?!' #B ' ' ! !# = '> ; 4' = '
#B ; !# ;' !?;' K >< =#' ?!' #B ' K; =@ K 86' (C< ' ?!'
#B ' ' + D# ' 88 = ;8>4' #B ' ==C ' ; =#' ?!' #B '
CD NC =#' > ; ' D =A' K > ' 0 " ' #B ;' L
4' E #B' @?= =#' !?; ' B ; D>' ; = ' #B ' < '
#?' D ' K > ' ?C#' ?!' #B ' ?<<?=') ?? ' = ' ?#B ;'
 =C ' ?!' #B ' ' %?E=' ;# !> =A' 0 " '
%B ;' *(* !# ' E #B' @?= =#' !?; ' +? ' B ; D>'
 ;# !>' = ' ; = ' #B #' 88' * A 88; # ' ?!' #B '
 ' C;AB' ?;' ?#B ; ' < KK8> =A' #B ' !?; ' *<L
K?! # ?=' #?' =>' ?#B ;' = ' ?;' C! 4' ' 8 ?' 88' #B '
 @ ; ' ?!' #B ' ' *<K?! # ?=' ?' < KK8> 4'
#B #' #B >' B 88' D ' 8> D8 ' #?' < " ' !C;#B@?< =A'
 = ' ; !?C= ' #B ' < ' E #B' #B ' *=# ; #' #?' #B '
 ; #?; ' ?!' #B ' ' %?E=4' = ' #B #' #' #B ' *=L
=@ ' #B ;' ?!' #B ' ' ; #?; 4' ?;' ?!' =>' ?#B ;'
 C;A ! ' E #B =' #B ' ' C;AB' = '#?' #B ' !! @#'
#' < >' D ' @ ;# =8>' "=?E=4' D?#B' EB #' #B ' '
*<K?! # ?=' B 88' <?C=#' #?4' = ' #B #' #B ' < ' '
 C 8>' KK8> ' =' < == ;' !?; ' %B ;' # 4'
E #B' @?= =#' !?; ' ; = ' #B ' ' %?E= ' ' 9'
A #; # ' = ' ?C=@ 88' #B ; ?!' #?' " K' # =@#'
??" ' ?!' #B ' ' *<K?! # ?=4' D?#B' ?!' B ;A ' = '
+ !@B ;A 4' = ' #?' < " ' #B ' < ' K # =#' #?' 88'
 = ' ! ; ;' %B ;' * # 4' E #B' @?= =#' !?;

```
+? ' B ; D>' *<K?E ';  =>' #E?' ?i' #B ' O?;  ' ?i'
( i ?=?4 #?' D ' D>'#B <'  = <  'i;?<'# < '#?' # < 4
E #B' #B ' #E?' 8  #  ?<< i ?= ; '?i'#B ' (B>;  '
#B '%?E=?i'& =DC;'AB'  = '  # ?= 8*<K?  # ?=' 
CK?=' 2 = '  = '  8?  #B' K  #'#B ' ( @?= ' ( i ?='?i'
#B '@C;'  =#4  / ;8  <  =#4  = ' #B ' #'i;?<'  = ' i#  ;'
#B '% ;'< ' ?i'  ;'#  = F'#?'@?< ' DC'# K;  CL
@ ' 8E > ' #?' #B  ;'  ?88 @#?; ';?;'% @"  < =';#?' =L
NC ; ' i?;'  = ';CK8 i#'EB #  ;'?i'#B '  *<K?i L
# ?=' B 88D 'i?C=  ' C ' K;  @  EA'#B '  '% ;'< '
= ' #  'B ; D>' (# #C#  ' = ' + @8 ;  '%B #  =A'
#B '  *<K?i # ?=' ?C=#;>'4 E #B?C'# K > =A'#B 'i?;'
B 88D ;?@B'  ;'# i>  =A'  88  ?88 @#?; '4 ((C;  > ;'  = '
K ;?@B'  ;'# i>  =A'  88  ?88 @#?; '4 ((C;  > ;'  = '
2  # ; 'EB?' B 88 D '  =>' E > '  @@ i ?;>' ;= '4 #B >'
&FK?;'# =A'  =>' C@B' 0 =#' ?;' 0 ==  =';  ;= '4 #B >'
B 88D '  K;  '?i'#B  ;'  ii @ '4  =  '  @8 ;  '  =9'
@ K 2 '#B ; ?i'  =' 88# < '#B ;  i#  ;'  =  '  @"8 " '
#B  ;'  i#  '/;?B D # ' = '+ i@B ;A '#B ' ( 88 =A'
=>' 0 ==  =';  ;='  =?#' KC#' CK'  =#?' B K 4  @B'
B K @?=# = =A' #E 8  '@C## 4  =  '  @B' @C##' @?=L
# =A' F' i@?; ' #B;  4  = ' #B #  =?'  8 ' D
< 'CI ' ?i' C=  ;'#B ' <  iC;  = '8 =A#B' ?i' % ='
3C ;# ; 4 C=  ;' #B ' K  =' ?i'  ?=i i@ # ?=' '  i?; L
 ' 0 "  '#B  ;'  # 4 E #B'  @  '  = '@?=L
=# i?;  ' (# #C# ' = '  ;  =' #B #  88 0 ==  =' 
> < 'D ' ?8 'D>' 2  AB#  = 'iC;'#B ;' %B  ;'  L
i#  '@?=  ; ='A'B?E' <C@B'#B 'C= i?;'< 2 ?;" ='A'
=  '  iC;  ='A' ?i' 0 ==  =' 8?  #B' < >' ; i ' #B '
8C ' #B ; ?i' E #B' + #  '  = ' (#; ='A ; 4  = '
; = ';' #B #'%;  ' <?; '  i>'  = '  @@ K# D8 ' #?
```

#B ; ?!'%B ; !?; '#B ;' # 'E #B'@?= =#!?;9
'(# #C#' = ' + @8 ; 4 #B #' #' B 88' D '8 !#C= '
#?' =>' K ;!?='EB # ?< ;' #?' &FK?;#' 0 == ='
8? #B' @@?; =A' '#B ' < ='E ' ='C! '#?'D ' FL
K?;# 'D !?; '#B '< " =A' ?!'#B ' @#' #' =>'# < '
D #E F#'#B ' #'B ; ?!' = '#B '! ; #' >'?!' ;@B'
= F#' ;# !> =A' 88' C@B' 'B 88'K; !C< '#?' FK?;#'
=>' 0 == =' 8? #B4' !# ;' #B ' '! ; #' >' ?!'
;@B'=?#' < ;" ' = ' # <K ' ='< == ;' D? '
KK? =# '#B ' < ' B 88'D ' ?=! !@ # '!?;'#B 'C! '
!?; ' = '!C;#B ;' #B ;' # 4'E #B'@?= =#'
!?; ' # !>' = ' KK;? '#B ' (F# =#B' @#4'
(@?= ' (! ?=4 $; #' / ;8 < =#' 1 =A'J < '#B '
(=#B' &=# #C8 ' @#' !?;' C;> =A' =' (@?#'
0 == =4' C#B?; W =A' = '*<K?E ; =A'#B ' ; 88'
JC A ' = 'JC # @ '?!' / @ '#?' F; ' F @C# '#B '
< ' ='#B 'E >' = ' < == ;' ' 'K; @; D 'D>'
#B ' @#' = '!?;'#B ' =@?C; A < =#?!' 88'K ; ?= 4'
EB?' B 88' =# ;' =#?' ?<K = '?;' =C! @#?; '
!?;' < " =A'?!'0 == =' 8? #B4' *#' 'B ; D>' (# #C# '
= ' ; = '#B #' 88' 0 =#4' $8 F' = '0 == ='
< ' <K?;# '!?;'#B 'C '?!' C@B' ?<K => '
?;' =C! @#?; 4' = ' 88' 0 == =' 8? #B' FK?;#L
'D>'#B <' *B ''D '!; '?!' 88' C #?< '+C#>'?;'
&F@>! '!?;'#B 'K @ '?!' > ; '= F#
!# ;'#B >' B 88' =# ;' =#?' C@B' ?<K => 'K;?9'
=A'#B ' < ='D ' =# ; ' =' = ' ##'CK'E #BL
='#E?'> ; '!;?<'#B ' # '?!'#B ;'K; ! =#'+ @8 ;L
=A' = ;#B 8 '#B #' #' B 88'D '8 E!C86'#?' < " ' 88'
*D;#'?!'+?< "' = ' + < 8"' !?;' % D8 '0 == =4'
= ' 88' < == ;'?!'0 == =' 8? #B4' < '!?;'K; #'
C! 'E #B ='#B ' 1 =A ?<4' ?;'#B #' ' < ' ='#B '
2 # ;= '* 8 '?!' C@B'0 =A#B' = ' ; #B' '#B '
E= ; ' B 88' #B ="' ! ## ?#E #B # = =A' ?!'#B '
K; =#' @#?;' =>'#B =A'#B ; ='@?=# =

%' =' ! ?C; ' ?!'#B ' =C! @#?;>' ?!'
'Q &; @# =A' #B <' =' '!; ' *=@?;L
K?; # ?=

UG' ' ' (& *) &' 0 +' = '0 + '#B
1.=A' = '3C = ' # 4' = '#B; '& # # '?!'
/ ;8 < =#' ?=! ; =A'#B 'A; #' =# A '#B #'
< >' ; '#?'#B ' # ?='D>'&; @# =A' = ' 1 =# =9
=A' ?!' =C! @#?; ' = ' K @ >' D>' &; @# =A'
C@B' = !C88' E?;" ' 'B ' =?#' > #' D =' C '
E #B ='4#B ' < 4' = 'EB ; D>'#B '= # 'K;? C@#'
?!'#B ' # ?=' < >'D ' <K;? ='#?'#B 'D #' 88'
E #B ='#B ' < 'D !?; ' #'D ' = ' D;? ' = '
=A'#B #'J < '!!?C8 4' J?B=' ?88 = 4' 2 88 <'
); B < ' + ' ;= '%B?< ' + = 4' J < '
B 8>4' 2 8# ;' (# E ;#' = 'J < ' <KD '
< ;@B =#' ' ; ?8 '#?' ; @#' = \' @ ;;>' ?='
E #B ='#B ' 1 =A ?<' = ' =C! @#?;>'!?;' < " =A'
#B #' ?;#' ?!' 8? #B' @?<<?=8>' @ 88 ' ?8@B # ;'
4' = ' 88' ?#B ;' ?;#' ?!' 4' EB @B' ! ! '
E ' @?= C< ' 'A; #' '?!' 2 ??86' EB @B' @ =L
=?#' D '?#B ;E > 'K;?! # D8 4' = #B ;' #' B?< '=<Z
D;? 4' = '#B ;' # ' = '#B; '& # # '?!

/ ;8 < =#' D =A' E 88 =A'#?' A ' ' C ' =@?CL
; A < =#' #B ; #?' = '#?'#B ' D? '= < ' ' = ;L
" ; '%B ; !?; '%B ;' # ' = '#B; '& # # '
?!' / ;8 < =#' +? 'B ; D>') ' = ') ; =#' #?' #B '
' = ;# " ; ' D? '= < '#B ;' ; ' = ' A9'
= > ' / ;#= ; ' ?@ # ' = ' (C@@ ! ?; 4' = '#?'
#B ;' + KC# ' = ' ; =#' =' #B ;' = < '#B '
!C88' = ' ?8 ' /?E ;4' 0 D ;#>4' /; 8 A ' = '0 L
@ =@ 4' C; =A'#B ' K @ '?!' (=' > ; ' !# ;'#B '
# 'B ; ?!'#?' ; @#' = '@ ;;>' ?='#B ' '< =CL
! @#?;>' =' =>' K8 @ '?;' K8 @ 'E #B ='#B ' 1 =AL
?<' = '#B ; =' #?' < " '#B '(' 8 ' D? '
=<= ' = ' '?#B ;' ?;#'?!' ! ' /;?B D # =A'
= '+ !@B ;A =A' 88'?#B ; 4' E ''#B ;' #'
(CD @#' '! !?;; A= ; '!;?<' < " =A'2 #B ='#B '
1 =A ?<' =>'?!'#B ' ' 8 ' C; BA'#B 'K @ '
?!' =' > ; 4' = '#B #' C= ;'#B 'K ='?!' ?=L
! @ # ?='?!'#B ' < 4' = '?!'#B 'B 88' ?<<? # '
; 88'%?? ' = '*=!#;C< =#'#B ; #?' D 8?=AL
=A4' =' ! ?C; ' ?!'#B 'C= ;# " ; ' D? '= < '
= '#B ;'!?; ' = '! ;#B ;'KC= 8B< =#' '#B ;'
!# ' /; >' ?C=@ 86' B 88' #B ="' ! ##' *#' ' 89'
[E >'B ; D>' + @8 ; '#B #' #B '!?; 'K;?B D # ?='
B 'D ' F# = ' ?=8>' A = #' C@B' 'D>' ? =#'
(#?@"'D>'E >'?!' ?K ;#= ;>' = 'KCD8#@"' < =CL
! @#C; 4' 8B 88' < " '#B ' ' >! 4' DC#' =?E >'
A = #' =A8 'K ; ?= 4' EB?' CK?='#B ;'?E='K;?K ;'
B ;A ' ? '?;' B ' < " ' =>'#B ; ?!' = '!C;L
#B ;'#B ;' 7 ' = '& # # '?!' / ; < =#4' +?'
=?#' ?=8>' + @8 ; '#B #'#B ' '2 ?;"' EB =' ; @#L
' B 'D ' ' < =C! @#?;>4' DC#' 8 ?' =?E' '#B ='
= '#B =' '=?E'B ; D>'&; @#' B ' ' = # '#B ' '
J < ' *$?C8 4' J?B=' ? = ' 2 <'); B < '
+ ' ;= '%B?< ' + = 4' J < ' B 8>4'
2 8# ;' (# E ;#' = 'J < ' <KD ' = '#B ;'
!?; 4' =#?' '!; ' = '8 E!CJ*' *=@?;K?; # ?=' = '
? >' /?8 # @"' E #B' 'K; 8 A ('C(C 4' + @8 ;L
=A'#B #'#B >' B 88' B ' ; AB#' #?4' = 'D;??"' = ' \
= ?>' 88'#B 'K; 8 A ' = '*<<C= # 'K;? > '
=' ! ?C; ' ?!' =C! @#?; 'D>'#B '!?;< ;'0 E '
?!'#B '1 =A ?<' = '!C;#B ;'%B ;' # ' = '
& # # '?!' / ;8 < =#' +? 'B ; D>'&= @#' = ' ;9'
= 4' #B #'#B ' (#?@"'#B #' B 'D ' =@ 'D>'
#B ' ' ' = ;# " ; ' = '#B ;'!?; 4' !?;'@ ;;>L
=A' ?=' ?!'#B ' ' =C! @#?;>4' = '#B '0 = '
= ' ?C! ' EB @B' B 88'D ' @NC ; ' ?;' DC 8#' !?;'
#B 'C! '#B ; ?!4' 88 '; < =' =' '# < '@?< =A' '
<?;# !> '!?;'@ ;;> =A'?='?!'#B ' '2 ?;"4'E #B?C#
K; C @ ' 88E >' #?' =>'?!'#B ' ' ' = ;# " ; '
?;'#B ;'!?; '#?' !8 A= '#; = ! ;;'?;'@?= >'#B ;'
(B ; '?!'#B ' '(#?@"'?;'?#B ; '!?; ' ='EB?8'
?;' ='K ;# 4' ?;'#?'#B ;' ; #?; '#?' !! @#'#B ' < 4'
D>'8 A ' + 8 A =@ ' ' @@?; 4' #B ' =C! @#?;>'
8E >' B =A' # =# ?=' ?!' 88' B ;A ' EB @B'
B 88' D ' FK = ' D>' #B <4' =' ! =@ ' ?!' =>'
@# ?=' #?' D '*=# =# ' #'#B '*= # =@ '?!'#B ' '
; #?; ' = '?;' < '!?;' !! @# =A' #B ' (#?@"' ?!'
=>'?!'#B ' ' ' = ;# " ; 4' ?;'#B ;'!?; ' @L
@?; =A' '#B '!?; ' FK =! ' B 'D 'A ='CK4'
C= ;'#B 'B = '?!'#B '< = A ; '!?;'#B '# < ' =

'*=)

B #B D =!?C= <?; !$ @## 8!?;#B *<K;? =A =&=8 ;A =A#B ; ?!#B =#B &; @# =A = *=9 @?C; A =A?!? <K = EB ; D>#B < < >D @ ;;> ?=D> = ;# " =A #?#B ; <?# #K ;# 4 EB @B# ?!#B <B 0 ## ; / # =# C= ;#B) ; #(8@?=! ;< =A#?#B <#B EB?8!?;L /?E ; = /; 8 A 4 E #B EB #?#B ;&=L @?C; A < =#B ;# B 88 C A = !C884 = =#B !?;< 4 = E #B#B ?8 <= # =# C@B @ @@C #?< = #B & # # ?!/ ;8 < =# ?!C;#B ;# @?<< = ##?#B ;# # 4 #B # =@ ! => ?!#B <K = 4 #?D =# ; =#?= ## CK B 88 =#B ;= L ?C; !?;#B =@ =A = K;?<? =A?!%; 4 K @ 88># ?#B !?; ; <?# ;K ;# B KK =#?D ## @" = ?8 =#8>! W 4 ?;?#B E > L #C;D D>K ; ?= =?# = IK = E ;; E #B #B ;# !# 4 #B # #B = = =#B # @ ! 4 #B ;# !L # E?C8 D K8 #?; ?; ;4 #B # #B @? ;>4 ?!#B (B K =)?? ? ! W 4 ?;?#B ;E > <?8 # = B = ; D @ ;;> ?=K;? @C# D>KCD8 @"< = 4 = # KCD8 @"FK = 4 #B ;# !# B 88 #B ="A?? 4 = #B # !?;#B K @ ?!=> ; 4 !# ;#B # ?!#B K; =# ?;!C;#B ;4 !# ;&; @# =A?!#8 ?<K = 4 = A; =# =A #?#B <#B ;0 ## ; / # =#4 #B ;# B 88 @ C!

%Q %*$* %* = =# #B ?<L <C= @ # ?= ?!%; #?C;AB ?!;?=>Q A 8 #>

$ (' #B ?= =# ?= ?!#B ?> B C=;?E ?8 = # +C= #B %B ;# =#B ?!JC8> = #B?C = (F C= ; = >=# #E?4 D =A E 88 =A #?@?<<C= @ # #B = ! # ?!%; 88?E #?#B <D>#B 0 E = @# ?!/ ;8 < =# =! ?C; ?!C;;?CAB ?!A 8 # ;?= = ?#B ; 4 #B # @?C8 ; 8 #B <?!K;?K?;# ?= 88 K ;# ?!#B C;#B = <K? CK?=%; D> ?=#; @# ?!#B + # #B > ?!= JC=?4 = #B?C = (F BC= ; > ; 4); =# /?E ; = ?<< ! ?= #?# # ; J?B= C@B = ?@ # #B ; A =# = #?B !CD!# #C# !?; EB?< B B 88 D = E ; D8 !?; #B K @ ?!#B; ?; ! > ; = =#B ?K# ?=?!#B J?B= #?@ C! KC# #B @# ?!/ ;8 < =# < =#B ; ! ?C; 4 CK?=#B !?C;# =#8 > ?!JC=?4 = #B?C = (F BC= ; = >=# > #?F @C# ?= A = # C=!; %; ; 4 = #?KK8> 88#B ! !>= / = 8# = !C 8 # #?B = #B ;?E=C! dQ D B? = #?? <C= @ # #B D = ! # ?!#; #?C;AB ?!A 8 # ;9 ;?= Q #B ; C; =A#B ! !K @ - B B?C8 #B ="! ##4 ; ; =A 8E > K?E ;#?#B ?> C;;?CAB ?!?;?#B ! !; ?< = K; 8 A ?! %; 4 #?A; =# #B < CK?= C@B ?<K? # ?= 4 #B > B 88#B ="! ##4 K;? > =A 88E > #B ?<K?! # ?= E ; K > =#?#B J?B=4 !!?; EB @B B ?D8 A #?; 8 #B ?> 86 C;;?CAB 4 C; =A#B K @ !?; 4 ?!# = K?C= ?!#B C= ; K?C= ?!#B % F# ?88 <K? CK?=#B ?> C;;?CAB D> / ;8 < =#4 #B ?=#; @# <?; !C ' > D ; 3 ' (& *) &0 + = 0 + = #B & # # ?!/ ;8 < =# @?= ; =A B?E C # = =# A ?C ?<<C= @ # ?= ?!%; E 88 D #?#B B 88 0 A 4 EB = #B < A; =# D>#B ?> C;;?CAB !?; ; 8 ! ?!K;?K?;9 # ?= K ;# ?!#B DC;#B = <K? CK?=#B <!?; #B ; %; %B ; !?; #B ; # E #B @ = @?= =# ?!#B & # # ?!/ ;8 < =# +? # !> KK;? = ?=! ;< I #B ?=L #; @# = # B 8 B 8 C! = ;# @8 D? E; ## = = #B ; !# E #B @ = @?=L =# !?; (# #C# = ; = #B # @"8 " F L @C# ?= B 88 K ! A = # #B C;AB ?!A 8 L # ;?= = ?#B ; !?; =D; =A =A#B K;?L K?;# ?= ?!#B DC;#B = #?D A #?; ; 8 !?!#B ?> 86 C;;?CAB 4 EB @B => ?!#B <B #B 8; >4 ?; B ; !# ; B A; C=#?4 = @?=L ; # ?= ?!#B D = ! # ?!%; @?<<C= @ # #?#B <4 @"8 " = = #B < < == ;4 C!C 88 !?; =D; =A =A ?!#B ! K > D8 #?#B ; L # D> #B ?> 86 C;;?CAB = ! ; ; #B ; # E #B @ = @?= =# !?; +? B ; D> FK; ! 8> (# #C# = ; =4 #B # !# ;

D = ?!#B = A ; !?;#B # < = ?#B !! @#B #C@B ?= > =@ < >D #B <?; ! 8>FK *#B ; D>&= @# (# #C# == + 7 ; #B #B !?; (#?@"# ; 88 = /;?9 ! # #B ; ?! E #B#B 8 = B?C! 4 D8 #@B =A ! 8 @NC ; = #?D @NC ; D>#B *=94 @?;K?; # ?=!?;#B K ?!#B ; =C! @#?;>4 E #B J =# = !C 8# ?!#B < =4 !B 88 D #; = < ! D8 D>#B /;#= ; 4 ?; =>?!#B <!?;#B ; ; K @# *=! ; !# #B ; =EB?8 ?; =K ;# 4 D> <K8 %; = 8 # ?=?; A= < =#4 A= D>#B) ; =# ;D !?; #E?CD!@; D 79 =A 2 #= ! 4 = #?D \8 @?; = *= ;# = #B ??" ?!*B (?@ #>4 = = &F#; @# #B ; ?! CD @; D = =8 " < == ;D>#B 1 K ;4 ?!#B ??" 4 #?D 8 ; #?#B KC;L @B ;4 E #B?C# =>+ K?! # ?= B ;!?; ?; *=! !#9 < =# A #; # ?=*=# < # ?=?; =>?#B ;$?;9 = 8 #>; NC>; D>#B 0 E = K; @# @"?!#B 1 =A ?<4 B ; D>+ @8 ; =A#B # C@B %; = 8 L # ?=?; ! A=< =!#?D c @?; = = ;# = #B ??" 4E #B#B !?; &F#; @##B ; ?! B 88 D 8 8 = ! ! @#C 88 AB# #?#B = @ ; 4 !#B >B 88 C!C B* = & 9 =# FK #B ; ! =#4 = #B @?<<?= !? ## ?! 0 E4 #B ??" = @?; D =A 8E >0 < K # =##?#B 0 A 4 EB = ; = ?!# ; NC ; = !C;#B ; %B ; # 4 = #B & # # ?!/ ;8 < =#+? (# #C# = ; =4

#B # 8 < # ; 88 *= #;C< =# = ?#B ; EB #9 ?< ; = !C88 = C! !C '!?;#B = C! <K?;# 4 EB #B ; = ! &D;; A= !7 88 ?;#B ! D 8?=A =A#?#B 1 =A ?<4 = 88 0 == = 8? #B < = #B = C! @#?;>#?D &FK?;# 4 !B 88 D !; ?! 88 # #?<&F@ 8 4 = 88 ?#B ; KCB8 @"+C !?;#B K @ ?!%E =#>?= > ; 4 = F# !# ;#B # 7?!#B K; 8 =# @# [= !?; <C@B D>#B !?C;# #B @# ?! / ;8 < =# = #B?C = (F BC= ; (F#>?= > ; #,- K;? > #B # =>(#?@"# <K8?> !?;& ; @# =A = *=# ;# = =A =C! @#?; 49 B 88 D !; ?! 88 K; # = KCB8 @"% F %B ; !?; #B ; L # = & # # !?; + ? (# #C# = ; = #B #B (#?@"# ?! #B = =C! @#?;># =@ = #?D =@ = K;?! # #B ; ?!4 = 88 0 = = ?#B ; @NC ; !?;#B C! ?!#B < 4 = #B ?C! DC 8# ?;#?B DC 8# #B ; ?=4 B 88 D !; ?! 88 ! 4 (CKK8 4% F # ?= &F@ ! = ?#B ;KCB8 @"# C;#B = <K? C; =A#B K @ !?; 8!?#B #B 8# = 7 0 NC?; < ?! 8#4 ?;?#B ; #;?=A 2 # ; EB # ? ; < C ?!!?;#B # ; = (; =# = ?#B ; <K8?> =#B =C! @#?;># E #B =#B # 9 88 ?! 0 #B = @?= C< E #B =#B D?C= !?;L B 88 D !; ?! 88 &F@>! #B K @ ?! #E =#>?= > ; !# ;#B # ?! #B ;K; ! =# 8 ? #B #B #B 0 = = B?C! = B '*=L B D # =# #B ; ?! B !; ?! 88 3C ;# ; =A?! (?C89 ; 4 #B ;8? 88 ?;#; = =#4 C; =A #B # = L =A?! #B =C! @#?;> = P ; # #B # ?#B ; EB #9 ?< ; = !C88 = C! !C '!?;#B = C! <K?;# 4 EB #B ; = !?#?D <K?;# 4 EB #B ; = ! &D;; A= !7 88 ?;#B ! D 8?=A =A#?#B 1 =A ?<4 = 88 0 == = 8? #B < = #B = C! @#?;># ?D &FK?;# 4 !B 88 D !; ?! 88 # #?<&F@ 8 4 = 88 ?#B ; KCB8 @"+C !?;#B K @ ?!%E =#>?= > ; 4 = F# !# ;#B # 7?!#B K; 8 =# @# [= !?; <C@B D>#B !?C;# #B @# ?! / ;8 < =# = #B?C = (F BC= ; (F#>?= > ; #,- K;? > #B # =>(#?@"# <K8?> !?;& ; @# =A = *=# ;# = =A =C! @#?; 49 B 88 D !; ?! 88 K; # = KCB8 @"% F %B ; !?; #B ; L # = & # # !?; + ? (# #C# = ; = #B #B (#?@"# ?! #B = =C! @#?;># =@ = #?D =@ = K;?! # #B ; ?!4 = 88 0 = = ?#B ; @NC ; !?;#B C! ?!#B < 4 = #B ?C! DC 8# ?;#?B DC 8# #B ; ?=4 B 88 D !; ?! 88 ! 4 (CKK8 4% F # ?= &F@ ! = ?#B ;KCB8 @"# C;#B = <K? C; =A#B K @ !?; 8!?#B #B 8# = 7 0 NC?; < ?! 8#4 ?;?#B ; #;?=A 2 # ; EB # ? ; < C ?!!?;#B # ; = (; =# = ?#B ; <K8?> =#B =C! @#?;># E #B =#B # 9 88 ?! 0 #B = @?= C< E #B =#B D?C= !?;L B 88 D !; ?! 88 &F@>! #B K @ ?! #E =#>?= > ; !# ;#B # ?! #B ;K; ! =# 8 ? #B #B #B 0 = = B?C! = B '*=L B D # =# #B ; ?! B !; ?! 88 3C ;# ; =A?! (?C89 ; 4 #B ;8? 88 ?;#; = =#4 C; =A #B # = L =A?! #B =C! @#?;># = P ; # #B

=# & # # !?; B ; D>+ @8 ; #B ## 8 =?# D 8 E!C\8 !?; =>< 8 # ;> !! @ ; ?;K#B ; #?b4 *=8 #9 =>?!#B (; =# D 8?=A ##A #U#B =C! @#?;>4 8#B?CAB E 88 =A #?=A A (? 889 ; = #B ## B 88 =?# D 8 E!C88 #?@?C=# ;! ##B < = !?=?;K ; ?= EB # ? ;4 ?; =>?#B ; *=@?;K?; L # ?=?; =C! @#?;>#?=# ;# =! #B ; K; # (; @ 4 ?; !?;#B C! ?!=>?#B ; =C! @#? > =>?!#B (; =# D 8?=A =A#?#B 0 == = =C! @#?;>?!#B ## 88?!0 #B4 C=# 88 ! ; # #B > ; ?C# #B ;# < 4 @?=!?;<#?#B ; ; 86 9 A; < =# = #B / ;#= ; B 88 B K?E ;#?; # =?; @ 88 D @"# =>?!#B ; (;L =# EB ; ;#B >@ =D !?C= 8!? %B ; !# = #B & # # !?; +? @8 ; #B # ;# ! @ # CK?=(?C8 = ?= @ =@ 4 C= ;#B 7 B = ?!#B # ; = 8 ;"?!#B (?@ #>4 + L @8 ; =A#B # C@B K ; ?=D 8?=A #?#B *=@?;K?L ; # ?=4 aB 88 D C!! @ !#?? D8 A =>?!#B ; !# 0 A 4T !! @ ; ?;(?C8 ; 4 EB #B ; !?=; A= ?;#B?! # B?< #? 8 ;CK[#B (; =# 4 C= ;#B K = 8#>?!#E?BC= ; K?C= (@?## NC ; =A B ; D>#B ; K @# A !9 #; # =C;AB?;0 = E ; #?@C; #B K ; ?= 4 D 8?=A =A#?#B =C! @#?;>4 = #? < = # ; C # @ A = # C@B ; !C #?8 ;#B <4 # 88 B < " K >< =# ?!#B (C<?!%E?BC=L ; K?C= (@?# 4 = 8 ;CK#B K ; ?=?; K ; ?= D 8?=A =A#?#B J=@?;K?# # ?= = #B ; !# = & # # !?; + ? B ; D> KL K? =# #B 0 ?= =*=@?;K?; # ?=#?B ; E #B EB K8 #B >9 B ! @B9K @ ?! 0 == = 8? #B < =#B =C! @#?;>4 E #B #B *<K; ! ?= B =A!?; ?##?0 9 = #B # # B 88 =?# D 8 E!C88 #?@?C=# ;! ##B < = !?;#B ; *=@?;K?; # ?= #B ; !C;#B ; &=9 @?C; A < =# %B ; # = & # # !?; + ? B ; D> # !> = KK;? 8# !?;< ; @# ?! / ;8 < =# < =! >?C; ?! #B =CL ! @#? >4 = K ;# @C8 ;8> #B # @# P?! / ;8 < =# &=# #C8 4 @# !?; C;> =A =(@?# 0 == =4 # #8 !?C;# =#B ?! JC= 4 = #B?C = (F BC= ; = & AB#> (F = @?<< = #?#B 0?; ?! / ; > ?C=@ 864 #?# #B @# !?; C;> =A = (@?# 0 =! =KC# #?C = = 8 E!C88 &F @C# ?=4 = 8 A; =#/?E ; = 2 ;; =# #?#B 0 == =*=@?;K?; # ?=#?KC;!C #B ?=#; = ; ?! #B @# !?;K >< =# ?! #B ; $>= #B ; = FK; #4 = #?KK8> #B ?= B 8! #B ; ?! #?#B <L 8 4 = #B ?#B ; B 8! #?#B K??; ?! #B K ;?@B =#B # ;< ?7#B @#

%& @# =A #B 2 ??88 = =C! @#?;> # E< 8= = = !; *=@?;K?; # ?=

' (& *) &0 +=0 + #B 5 1 =A = 3C = # = #B & # # ?! / ;8 < =# ?=! ; =A #B A; # =# A #B # U 0 4

& # # ' !?; ' B ; D>' + @8 ; '#B #' #' B 8' =?#B '
8 E!C8' !?;' =>' 8 # ;>' !! @ ;' ?;' ?#B ; '#?' *=8 !#
=>' ?!' #8 ' (; =#'D 8?=A =A'#?'#B ' ' =CL
! @#?;>4' 8#B?CAB' E 88 =A'#?' =A A ' ' (KC8 ; ' 4
='#B #' #' B 8' =?#D '8 E!C8'#?' =>'K ;!D=' ?;'
K ; ?='EB # ?< ;4?;' =>'?#B ;'*=@K;K?; # ?=' ?;'
' =C! @#?;>'#?' =# ;# =' =' #B ;'K; #'(; @ 4
?;' !?;' #B 'C!'?!' =>'?#B ;' =C! #?;>4' =>'?!'
#B '(; =#'D 8?=A =A'#?'#B ' ' =C! @#?;>'?!'
E< 8= 4' C=# 8' #B >'! ; #' ; '?C# #B ;'# < 4'
@?=!?;<'#?'#B ;' ; 86' A; < =# 4' ='#B #'#B '
'/ ;#= ; ' B 8' B 'K?E ;'#?'@ 8' D @"' =';L
=' =>'?!'#B ;' '(; =# 4' EB ; ;'#B >'@ ='
D '!?C= ' ' 8 ?' #B ;' # '= '&# # '!?;9'
'+? '+ @8 ; '#B #' '% #!@ # 9CK?=' (?C8 ='
?=!@ =@ 4' C= ;' #B 'B ='?!'#B ' # ;' ='
8 ;"'?!'#B '(?@ #>'+ @8 ; =A'#B #' C@B' '(; =#
D 8?=A '#?'#B '*=@?;K?; # ?=4' !B 8' D ' C!! @ =#'#?'
D8 A ' =>'?!'#B ;' !# 'O A 4' !!@ ; 4' ?;'
(?C8 ; 4' EB #B ;'!!?;; A= 4' ?;'#B ' #'B?< 4'#?'
8 ;'CK'#B ' '(; =#'C= ;'#B 'K = 8#>'?!9'
='BC= ; 'K?C= '(@?# 4' NC ; =A'B ; D>'#B '
; K @# ' A #; # ' =' C;AB'?;'O = E ; 4'#?'
@C; '#B 'K ;!?='?!'#B '(; =# 4' '8?'#?' L
< = # ;'JC # @ ' A = #' C@B'4' '; !C '#?' 8 ;'
#B ='D @"4' # 8' #B >' < " 'K >< =#?!'#B ' '
(C<'?!' ='BC= ; 'K?C= '(@?# 4' = ' 8 ;'CK'
#B 'K ; ?='?;'K ; ?='D 8?=A =A'#?'#B ' '*=@?;L
K?; # ?=4' = '9!C;#B ;'*#' '9B ; D>'(# #C# ' ='
9 ; = '#B #' 8' #B ' A < =#'%;??K' = '(?8L
;'?!'#B '(@?#'& # D8 B< =#' B 8' D '?D8 A '
#?'!C;= B'#B < 8 'E #B' 8? #B'?!'#B 'K;? C@#'
?!'#B '1 =A ?<4''+ @B ;A =A'B ; D>' =>'0 @ =@'
?;' + K =! # ?='#?'#B ' ?=#; ;' = '8 !#8>'9#B ;'
' ='& # # '!?; '+? 'B ; D>'*<K E ;'
#B ' '/ ;#= ;'#?' KK? =#' ' 81'!;?<'# < '
#?'# < 4'E #B'K?E ;'#?'#B ' ' 88 '#?'" K' ='
B?8 ' ?C;#'E #B ='#B ' '0 = '?!' E< 8= '
!?;' KC= !! =A' !' ; < ' = '+ 8 =N =@ '@?<L
< ## 'B>'#B ;'?E='(; =#' ;'?#B ;'CK?='#B ;'
A;?C= 7' = '#?' @> ' =>' !! ; =@'! 88 =A' ?C#'
D #E F#'#B ' '(; =# 4' = ' ='@ ! '?!' 8 =9'
NC =@ '#?' <K; !?B' = ' <K? ' = ' F @#!!>= 4'
@@?; =A'#?'#B 'O E '?!'#B '1 =A ?<4' = '!?;'
#B #' !! @#'#B ' '/ ;#= ;'#?' 8 @#'=?< = #' = '
KK?>;#' 8 ;" '(; =#'+ <K # ;' = '?#B ;'
<D ;'?!' ? ;#; NC ! #'E #B' 8?#B ;'*<< 9'
=# '/?E ;' = '/; 8 A 'A; =# ' ='! ?C; '
0?!' 8 '?!' ;?=>' = '#B ;' ?C;#

7 ['0'] $ @ 'X
+& &&%' =' ! ?C;'?!'#B ' B 8 ; ='?!'
(;'%B?< '(# E ;#?!'1 ;"! 8 '!?;'K;? =A'
#B '% =?;'?!'#B ;'DC;=# 2 ; # ' b' ||

U' * '#B ' @# ?=' ?!'K;? =A'#B '% =?;' ; ' = '
KC; C 'D !?; '#B ;' # ' AB' ?<< ! ?= ;'
'); @' 2 88 <' +C" '?!' < 8#?=' = '#B '
?=?C; D8 9& # # '?!'/ ;8 < =#' #'#B '*= # =@ 4'
?!'+ 4'J < 4' 2 ! # ;4' 2 88 <49'J?B=4' ?D ;#4

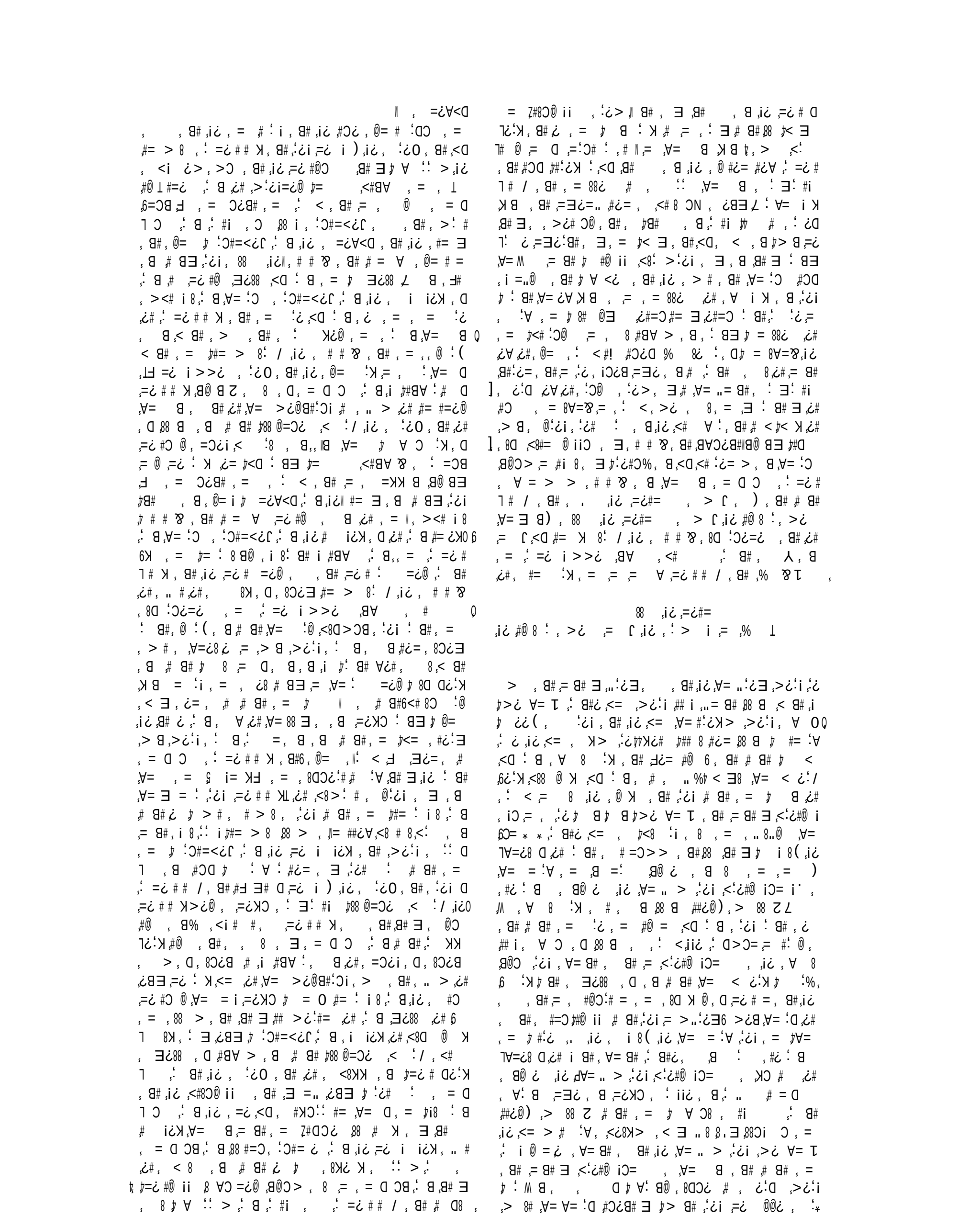
; ?=' = ' == '(# E ;#' B 8 ; ='#?'(;'%B?< '
(# E ;# ?!' ?8#= ! 4' + < ' ; ?='(# E ;# 0 >'
#B ;'/?88?@"4' E #B'@?= =#?!'(;'J?B=' FE 88'
?!' #B ;'/?88?@"' B ;'BC D = 4' = 'B '#B ' '
(;'J?B=4' !?;' B '*=# ; #' = ' !#; ' 0 8 '
(# E ;# CAB# ;' #?' #B 'T @ ' (;' J < '
(# E ;# ?!' 1 ;"! 8 4' #?' EB? ' B?;< 'BC;#' = '
K; C @ '#B 'K ;# @C8 ;' 2 ; # ' !# ;< =# ?= '
E ;'DC;=#' = ' #;?> 9D>'#B ' @@ =# 86' ! ;'
!# ;' FK; ! #' A = # 1 == #B' & ;8 '?!'(D;#B '
||" =A '?!'/8C @ ; = ' || " =A
?!') ;8?@B' >= ||?!'% #< #' *==
?!' ?! " =4' (;'J?B=' /; #?='?!'/; #?=B 88' = '
B ;'#?'#B ' @ #' (;'J?B=' /; #?='?!' ; ; '
J < '/; #?='?!'+C<D; ' 8 F = ;' = †' 0
?#B> 88' 8 ;' = '>?C=A ;'?!')8 =@?;! '
(?< ; 88'?!'+;C<4' ?D ;#+C= '?!' ;= #?C= '
?= '0?!'#B '(= #?; '#Y!'#B ' ?88 A '?!'JC # @ 4'
J?B=' & ;8 '?!'%E 8 'O?; ' AB' B =@ 88?;'
?!' (@?#8 = 4' J < '& ;8 '?!'+;C<8 =; A4' J?B='
& ; ||?!' 88 49') ?;A '& ;8 '?!' O =8 #BA?E4'
J?B=' & ;8 '?!' ; ! 8D = 4' 8 F = ;'O?; ' #B'
?<< ! ?= ;'?!'#B ;' !# '%B C;>4') ?;A '
& ;8 'K!' 8 88' O?; '/; >' (884') ?;A ' !9'
@?C=# ?!'% ;B #' O?; ' A !# ;4' J?B=' ## ;'?!'
(# ;' = 'J < 'J?B= #?='& NT' /; =@ K 88'(@; # L
; '?!'(# # 4' !! ;' J < '(# E ;# #B ;' # '
?@ # ' = ' <' ?@"D# ;= '?!' ;< #?C= '
O?; 'JC # @ ' 8 ;"' !?;'#B ;'; K @# '*=# ; # 4'
='#B '%C#?; ' = ' C; #?; '?!' C@B'?!'#B <' ';'
4' =?; 'X !'#B >' =>'B `!?;'#B ;'*=# ; # 4' = '
88'?#B ;'B =A'?;9K; # = =A'#?'B '*=# ; #' ='
#B ' '< ## ;' %B 'EB @B' (C<<?= ' < " # '
< =#?=4'#B #'EB ; '#B 'KC; C ;'B 'A?? ' = '
C= ?CD# '; AB#'#?'#B 'O = '?!')? #; 4' = '
8?'T#?' ; 88'?#B ;' O = '==C '' =#' = '
C<'?!' <?= >4' ##' ?E=' ='#B '2 ; # '!# ;9'
< =#?= 4' = '#;C '#' '#B #'#B '2 ; # ' = '
& =#'?!'#B 'B 88'K; <8! 'A; =# '#?'#B <'
='#B ;' C#B?; ' = 'K; @ ! ?; 4' = 'EB ; ?!'
'#B '% =?;' E '!C'>' '#8 =A#B' ##' ?E=' ='
T8?=A' (@;?88' K ;# 4' EB @B' D; ! # 9'@ C!' E '
#B ; 'B 8' '; K # ' = ' ' 'K ;#'?!'#B 'O ## ; '
='(C<<?= '#?'9D'#B ; ?=' ; @# 4' E #'DC;=#'
='@?= C K '#?' !B 4' D>'#B '! ; '#B #' DC;=#'
#B 'B?C!'?!'#B ' '(;'%B?! '(# 2 ;#4' ='#B '
<?= #B'?!' K; 8' = '#B?C = ' F||BC= ; ' = '
>=#||' > ; 49' 2 B ; CK?=' #' D =A' = ! ;>'!?;'
#B ' '/C; C ; '#?' B '#B '# =?;'?!'#B ' '
2 ; # 'K;? =' = '< 'CK' D>'+ @; #?!'#B ;'
'/ ;8 < =#4' #B ' '/C;!C ; ' ; ! '
#B < 8 'D>' '/ # # ?=' #?'#B 'O?; 4' P '#B ;'
!# '/; >' ?C=@ 864' #?'A '2 ;; =#'#?' =>'
?= '?!'#B ;' C<D ;'#?'K !' ' 88'!?;'@ # =A'!! '
K ;!?= '= ! ;>'#?'D '@ ' '8 "@E > '#B '2 #9'
= ! '#?' D 'C ' !'#B ' '/;?@ !'#?'@?<K ;
D !?; '#B '/ ;8 <' =#' #'#B ' >' = ' =' < ==0';'0
='E #B'#B ' ;#!@ # ?=' < =# ?= ' =' #B '
(C<<?= 4' 2B @B7' !; '#B ' '0?; '?!'#B ;
!#>'/; >' DC=@ 88'); =# 4' ' #B ;' + 9

=' 88 K? =# 4 E?; ' !?;' E?; ' @@ K# =A' #B ' K ;# @C9 [9 8 ;' 2 ; # ' !?88?E =A' ' ='*= #;C< =# ?!' (= ' ='! ?C; ' ?!' J?B='/; #?C=4 ?!' #B ' 0 = ' ?!') ?? #; ' # ' #B ' =>=#B' ?!' ;@B4 = ' #B?CL = ' F' BC= ; ' = ' #E?4 EB @B' #B ' ' ?= 9 < ## ' = ' C!! @ =#8>' < = @C8 # ' D>' = ' C9 #B B# @"' &F#; @# ?!' #B ' ?=#; @# ?!' 8 = # ?='?! ' #B ' ' 0 = ' D>' CAB' (?<< ; 88 ?!' + ;C<' #?' #B ' ' P J?B='/; #?C=' # ' #B ' >' ?!4 JC= ' ?= ' #B?C = ' F' BC= ; ' = ' = 4 = ' D>' ' = ' B ;# ;' C= ;' #B '); # (88 # '9#B ' #E =L # #B' ?!' !! D;C ;>'9 = ' #B?C = ' F' BC= ; ' = ' #E?4 EB @B' ; ' #B ' 2 ;; =# ?!' #B ' ‖(! = 4 FL @ K# =A' 8 ?' = ' + K?! # ?='D>' + ' ‖ C88?@B' ='! ?C; ' ?!' 0 8 ' (# E ;#4 ?!' #B; ' ; 88 ==C 88; =# 4 CK !# D8 ' ? G# ?!' #B ' 0 = ' ?!' E9 D>; ' # ' #B ' #B ; ' >' ?!'"!$ D;C ;>' ?= ' #B?CL = ' F' BC= ; ' F#>' ?= 4 2B @B' #B ' ' ?<L < ## ' 8 " E‖ ! ' !8! = ' #?' D ' C!! @ =#8>' < = @C9 8 # ' D>' C ' &F#; @# ?!' #B ' (= ' !?88?E =A' #B ; CK?=' # ' #B ' 8 # >' ?!' + @ <D ;4 = ' ' #B?C = ' F' BC= ; ' F#>' ?= 4 F@ K# =A' 8 " 94 ' E ' = ' + K? # ?='D>' + ' @ C88?@B' ='! 9 ?E; ' ?!' ;A ; # &88 ?#4 B ;' B 8 ; =' = ' ?#B ; 4 # ' #B ' AB#B' ?!' J =C ;>4 C ' #B?C = ' F' BC= ; ' F#>' #E?4 EB @B' #B ' ' ?<< ## ' ='8 " ' < == ;'! = ' C!! @ =#8>' < = @C8 # ' D>' #B ' *= #;C< =# ?!' (= ' !?88?E =A' #B ; CK?=' # ' #B ' =>=#B' ?!' J =C ;>' ?= ' #B?C = ' F' BC= ; ' F#>' #E?4 9 = ‖D>' = ' B ;#?;' ! ?=! ;< # ?='
#B ; ?!' CK ;' #B ' A; # (8 ' # ' #B ' =#B' ?!' CA= #4 ?= ' #B?C = ' F' BC= ; 4 F#>' #B; 47 = ' 8 #8>' F@ K# =A' = ' = ' = ' + K? # ?='0 A; =# ' 9D>‖ #B ' ' + ‖ [C'?@B' #?' == ' (# E ;# B '); = ' B 8 ' ?!' = '> ;8>' ==C 88; =# @?;; K?= =A' #?' #B ' K; =@ K 88 ?C< ' ?!' % =' #B?CL = ' < ;" 4 CK !# D8 ' ?C# ?! '#B ' ' 0 = ' ?!') ?? #; 4 EB @B' #B ' ' ?<< ## ' !! = ' C!! L @ =#8>' < = @C8 # ' D>' #B ' 1 ! ‖ < =# ?!' (= ' !?88?E =A' #B ; CK?=' # ' #B ' 0 >' ?!' = '#B?C = '^ F' BC= ; ' ' > ; 4 = ' 8 ?' D>' #B ' !?; ' B ;#?;' ?!' ?=! ;< # ?='!?8L 8?E =A' #B ; CK?=' = ' %B ; !?; ' #B ' ' ?<L < ## ' E ; ' ?!' ?K = ?=4 #B # #B ' # =?;' ?!' #B ' !?; ' 2 ; # ' @?=# = '4 =' #B ' !?; ‖ 0>D 88 ;D # <4 8 ' E 88 C@B' ?!'#B = ' ' E ; ' @?88 # ?=9 ' E #B' #B ' ??" ' ?!' @?; 4 2' #B ' 2 ; # ' FL @ K# ' = ' < = @C8 # ' ' !?; ' ?CAB#' #?' D ' 0 @ ;= ' #?' < " ' 8 ' A; # ! #B' =' C A < =# ' = ' ?C#E #B' #B ' < ' ' #B ' K; =@ K 8 'D !?; '#B >' E ; ' DC;=#4 = ' #B ' KC; C ; ' #?' B ' 8 ' A?? ' ; AB#' #?' #B ' 0 = 49< ' ' = ' C# ' #B ; ?!' = ' ?#B ; ' @?=# = ' ='#B ' 4 ' AB# 4 ' !'#B ' K; =9 4 @ K 88 '#B ; ?!' 2 ; ' # 88 F# =#4 ' #B ' K?;# ?!' ' #B ' ?<< ## ' ?!' ?=#;? ;# ' &8 @# ?= ' ?!' #B ' # ' #B ' #B ;# =#B' >' ?!' JC= ' = # =#0 C 8>' A= ' D>' #B ' ' 0?; ' 8 =#>; ' K; ' ?!' #B ' ' ?<< ## ' F# =#' =' K;?@ ('D ; ' 2 B @B' 9 ' K?;# D =A' ; ' ='K; =@ ' ?!' #B ' ' 0?; ' AB' ?<< ! ?= ;' B '); @ ' = ' #B ' & # # ' ?!' / ;L

8 < =#' <D8 ' #B >' !# ;‖ @?= ; # ?='B ' ?!' #B ' < =' K?;# C ' < ' #?' #B <' D>' #B ' !?; 9 ' ?< < ## ' !?;' ?=#;? ;# ' &8 @# ?= 4 D>' #B ;' @# ?!' #B ' # ' ?!' #B ;' K; =# ' KK;? ' = ' B ; D>' KK 7? ' ?!' #B ' !?; ' K?;# C ' < ' #?' #B <' D>' #B ' !?; ' ?< < ## ' !?;' ?=#;? ;#L ' &8 @# ?= 4 = ' #B ; !?; ' B ' $?C= ' = ' B ; D>' $ = ' #B #' #B ' !?; ' C< <?= ' D? ' < =# ?= 4 C ' ; ' !?;' K;? =A' #B ' # ?;' ?!' #B ' !?; ' 2 ; # ' = ' & =# ' K ;# @C8 ;8>' #B ; =' ' 8>D 88 ' CK?=' 8 =#4 = ' #B #' #B ' C ' < !9 ?= ' ?!' #B ' ' 2 ; # ' ' C!! @ =#8>' K;? =' D>' #B ' K? # ?= ' ?!' #B ' !?; ' 2 #= ! 4 = ' ?#B ;' K;??! ' D? ' < =# ?= ' '8 " E '#B #' #B '# =?; ' ?!' #B ' ' 2 ; # ' ; ' C!! @ =#8>' < = @C8 # ' = ' K;? =' =' < == ;' D? ' K @ ! ' = ' #B ; L !?; ' B T + @ ;B ' = ' ; = 4 = ' B ; B> + 9 @ ;= ' = ' ; = ' = ' C#B =# @"' %; = C< K# ?!' #B ' # =?;' ?!' #B ' 2 ; # ' D? ' 8>D 88 ' CK?=4 C= ;' #B ' 8 ;"' ?!' A # ;' B ' B = 4 ?;' B ' + KC# ' #?' < " ' 8 ' A; # ! #B' =' C A < =# = ' ?C#E #B' ' #B ' < =' ' #?' 88 =# =# ' = ' KC;K? 4 ' !' #B ' K; =@ K 88 2 ; # ' = & =# ' #B < 8 ‖E4 ; ' = ' < AB# B ' D ='PD !?; ' #B‖ >' E ; 4DC;=# = ' 8? #4 4 = ' #B # #B 9 9KC; C ; ' B ' 8 ‖A?? ' ; AB# # I' #B ' ' 0 = ' = ' ?#B ; ' D? ' 8>D 88 ' ' K?=' ' 4 +C# 4 = ' =# ' #B ; ?!4 = ' 88 ?#B ; ' @?=# = ' =' #B ' ' 2 ; # ' = ' & =# 4 ' !' #B ' K; =@ K 88 2 ; # ' = & =# ' #B < 8 ' E ; ' # 88 F# =#7 =' B = ' =?# #;?> ' = ' 8? # = ' #B #7 D @ C‖ ' #B ' ; 88 ! = ; ' D? = < 4 B =A' D ='@ # ' =' ?; ;' #?' KK ;' D !?; ' #B ' ' AB' ?C;# ?!' / ;8 < =# #?' < " ' ?DL @# ?= 4 EB>' #B ' # =?;' ?!' #B ' ' 2 ; # ' D? ' 8>D 88 ' CK?=4 < AB# =?# D ' < ' CK' ' K;? =4 > # =?#E #B # = =A' ?!' #B ' EB @B' # # ?= ' C ' A ='#?' #B <' #B >' ! 8 ' #?' @?<K ;' #?' < " ' =>' ?D @# ?= ' A = # #B ' < =4 ('9E ' '@8 ;8>' C= ; #?? ' #?' #B ' ' AB' ?C;# ?!' / ;8 < =#4 %B ; !?; ' #B >' A ' #B C' + @; # =' #B ' ' < ## ;' =' ! = =A' #B ' # =?;' ?!' #B ' !?; ' 2 ; # ' D? ' 8>B ' ' CK?=' K;? =4 = ' ; = =A' CL #B =# @"' %; = C= #('?!' #B ' # =?;' #B ; ?!' #?' < " ' ! #B' =' < == ;' # 8 =A#B' D? ' < =# ?= 4 = ' ; = ' 88 '&F @C# ?=' = !C88 '#?' K ! ' B ; ?=' =' ‖ !?;< ' ' !! ;

%' =' ! ?; ' ?!' 2 88 <' (@?# D = # " ;'!?;' < " =A' ?!' ? @B

3#% ' (& *) &' 0 +' = '0 + ' = ' 55' & # # ' ?!' / ;8 < =# # " =A' #?' #B ;' ?= ; L # ?=' #B ' A; # K;AC @ '#B ' 0 A ' C # = ' D>' #B ' E =# ?!' %; < ='!?;' < " =A' ? @B 4 B ; ?# 4 (= ' ? @B' B ;= B' = ')8 ! ' = ' ?#B ;' = @ !9 ;' #B ; #?' D 8?=A =A4 EB @B' =?# ?=8>' ? @ ! ?= ' #B ' > ;8>' &FK?;# ?!' ' A; # 8 ?!' <?= >' ?C# ?!' #B ' 1 =A ?<4 DC#4 8 " E >' #B # #B ' 0 A ' @ =L =?# D ' !C;= B ' E #B' C@B' = @ ! ; 4 EB =' #B >



V %' =' i ?C; ' ?i' 8 F = ;' ?=;?' ?i' ;@;?i#

% &' /;?@ 8 ' i?;' B A&' %; ?=' A = #ǁ 8' D;?CAB# #?' #B P' ;(4 = ' B ' K; =# ' = E ;' #?' #B ' *= @#< =#' D =A' ; (9 = ' #B ' O?; ' ?L @ # (4 = ' ?@ # ' i?;(#B ' / == 88' D =A' B ; (4 #B ;' i ; ;' D # ' E '@?=# =C '# 88' #?' <?;;?E

% &' / ;8 < =# ?C;' '# 88#?' <?=?E'#B ' ?i' JC= ' =i# =#' #% =' '@8?@"' H

%' &+* ') (4

' J' &' , (4 4+ 4, **'

/ & (' ' =' #B ' ?88 '@ 88

% &* ' J& (%*&(' AB' ?<< i ?= ;' = ' #B '& # # ' ?i' / ;8 < =# ?' < ##9#?#B ' ?<9 < i ?= ; ' ?i' JCi# @ ;>(4 #B ' /;?@ i ' ?i' %; i?=' =# =# ' = ' K =A'D i?; '#B <P A = #) ?;A ' +C " '?i')?; ?=(4 1 == #B' &' ;8 '?i' (i?;'#B' = ' 88' 8 ' =;>' / >=' '#?'D ' @Ci# 'D>'#B <' CK?='#B '*= @#< =#' ; 'D i?; '#B' / ;8 < =#(4 EB @B' ' B ; D>' @8 ; ' #?' D ' 8 ' 8 (4 ' i' JC # @ ' ='#B 'i ; #' =i# = '?;'?#B ;E > '@?=# =C ' '#B ' /;?@ i (4 C=# 88' #B ' = F# (i ?=' ?i' / ;8 L < =#(4 ' B ' #>' 88 88' #B =" i ##' #?' ?; ;

R 2,-' "6'31-' 2+i-' "6' +#0i-' D' "31-+',+-W .%33-5' 3"' 31-' +%Q0' "874%i!0

R0 7-73 31-' ,323-' "6' "/-+3127501

2Q-i 207-, +"4-6,0

-33-+' /0' 31-' 2+i%2W . -73 3"' 1%,' 2$-,30

2 &' ?' #B ; i?;'8 ' #J?'>?'-;' # ?=' 9XEB?(4 E ' < i# ?= ;' = ' (@; # ;>7=?E' E #B' ' 9XEB?(4 E ' i ;<8>9D 8 ' E 88'A '>?C;' #>'#;C ' = ' <L K ;# 86' @@?C=# "'#? =i?;<(4>?C' ?i' C@B'[#B =A ' ' ;' = ';>?C;'(CD @# ;C= >4P = ' < " ',#B <' KL K; B = 'i;?<' ,#B ;'; K; =# >8'?D ; # ?=' = ' FK ; =@ (4 ' E 88 'i;?<' #B ' <' <?;>'?i9EB # ' K # #B # 88'#B # ' ?= ' < >'B KK =' #?'K;?' ='9' ii @#C 884 C=8 i 9>?C;' #>' =';>?C;' ?> 88 2 9' ?< ' B 88 i 88 CK?=' C; ' i ;' = < # =A' #B ' < = #;' # ?=' B ; ' E #B' ' K ; #ǁ Cii @ =# = ' K?' '#?' F @C# '#B ' C# ' = ' ii @# ?=(4 EB @B4 PE 'B?K (4 B i ' KK ; ' =' #B ' K;?@ =A ' ?i' ' ' >?C;'/ ;8 < =#ǁ'9 [ǁ

* ' #B ' < =# < ' 2 ' @ ==?#' D # =' i;?<ǁ FL K; =A' ?C;' K; =# # i @# ?=' = 'B?K (4 =@ (4 =' K i ;;' '>?C;' # ' = (4 9CK?=' EB # B #B K ' =' #B ' (i ?=(4 B #B' D =' @? ; '#?' ' (4 2 ' < >'K; C< (4 2 ' ; '=?# CD @#'#?'#B '?;9 0 = ;>' $ # 'ǁ?i' / ?K8 (4 EB? ' i?;?C= ' #' '#?' 8>' #' # =@ 'i;?<'#B ;' /; =@

2 &' # " ' #B ' ?@@ ?=' BC<D8>ǁ#?' D A' #B #' =' @?= ; # ?=' ?i' #B ' < =>' A??' ii @ 9 ?= ' D>' #B '&' ;8' ?i' /?;#8 = '#?'#B?' ' ?i' #B ' # ?=(4 EB?' C; =A'#B ' ?8 =@ ' ?i'#B '8 # ' A= '#??"' B 8#' ;' ='#B ' ' = # ' /;? =@ 4P DC#' K @ 88>' ='@?=i 9' ; # D=' ?i' #B ' D8 A # ?= (4 #B ' #B ' #B ' D8 ;' #C;= ' 2 ' @?C8 ' < " ' #?' #B ' @?=i =@ ' >?C;' #>'B #B'D ='K8 '#?' KC#' ='C (4 D>ǁ@ 88 =A' ' '#?A #B ;' #' C@B' '# < B <(4 i?;' B ' ; ' ?i' #B ;9 ?=@ ;= (4 =' #B ' ?i' ' ' >?C;' #>4 >' #'K8 '>?C;' # ?= ' 2 ' @ ==?#' D # =' i;?<ǁ FL K; =A' ?C;' K; =# # i @# ?=' = 'B?K (4 =@ (4 =' K i ;;' '>?C;' # ' = (4 9CK?=' EB # B #B K ' =' #B ' (i ?=(4 B #B' D =' @? ; '#?' ' (4 2 ' < >'K; C< (4 2 ' ; '=?# CD @#'#?'#B '?;9 0 = ;>' $ # 'ǁ?i' / ?K8 (4 EB? ' i?;?C= ' #' '#?' 8>' #' # =@ 'i;?<'#B ;' /; =@

?= ?! #B 8 # 8 KK> 1 ?8C# ?=4 #? D A #B # >?C;
#> E?C8 D K8 #? @?=! ;; CK?= B < %
#8 ?! ?=?C; = #B 1 =A ?<4 >?C B D
= K8 #? ? = &=A8 = 4 = #? A B <
C@B ?#B ; < ;" ?! >?C; ! ?C; B ; 4 >?C; 9;
#> = >?C; ?> 88 2 ?< Z 88 #B ="! ##

2 & B 88 ?=8> ?C; BC< ; NC # #? >NC;
#>4 #? @@ K# ?! #B ?C; ?8 <= @8 ; # ?= #B
#B K = ?! EB # #B 1 # ?= ?E #? >?C;
#>4 D?#B !?; #B ; 8 A ?C = 8 ?=@ ; = 4 B 88
EB = ; >?C; !#8 # ! D?; Z C >?C; / ;8 < =#
= ?@@ 8 ?= !?; ? =A #4 D < !C;#B ; KK ; = C@B
#C;= ?! + C#> = D =@ 4 E #B #B D8 ! =A ?!);? = >?C;
E ?< = @ ; < >; = ;>?C; A= ? ; ,J 4 A8?; ?C A= 4 = C B KK> / ?K8 (A= D> 2 ;; > 4 = = = < ?! #B & # # ?! / ;8 < =#4 D>
> # K8 >?C; #
?C; # < ? # BC< D8 < ? # ! #B!C86 = < ? # ?D =# (CD @#
= (; =#

% /;?;?A # =A #B + > # !?; = # ; #?
# " #B #B ?! 88 A = =
! C; =@

*J (& *) &0 + = 0 + %B
1 =A = 3C = # @?=8 ; =A #B # #B
%E =# #B > ?! #B = # =# KK? =# !?; #K
= # ; = /; @B ; (@B??8< # ; = 7/ 9
A?AC #? # " = CD @; D #B #B ?! 88 A 9
=@ 4 = CD @; D #B C; =@ D> #B 8 # @#
#B ; = =# #?? B?;# # < #?; @B #B ! ;#B #
K ;# ?! #B 1 =A ?< + ?#B ; !?; E #B @
= @?= =# ?! #B & # # ?! / ;8 < =# /;?;?L
A # #B !?; # < #?; #B % =#B > ?! JC8>
= F# #? @?< 4 P?; = =A #B < #? A ?D =@
#? #B !?; @# D #E F# = 9#B K ;9
; <K#?; 4 C= ; #B K >= #B =@?=# = 4 =
!?; #B # !! @# K;?;?A # #B ?< < ?B A =D>
#B 0?; ?! #B / > ?C=@ ' 8 #? #B / ;!K=
#B ; D> KK? =# !?; #B # !! @#4 EBB K?E ; #?
#B < #? < # D !?; CK?= #B > ?! #B
< ?= #B5 = = == ; ?; = = #B @#

+ + *%* 0 %?; = =A #B 0?;
?!(! ?= #? C A C< < ;8> = =# #B K ;9
!?= ; !#?; A =!# #B ; $?;! C8#C;

' (& *) &0 + = 0 + %B
1 =A = 3C = # !?; = # ?= #? #B
@# < = #B (! ?= ?! / ;8 < =# = ! ?C;
?! #B / ; ?= ; #?; A =!# #B ; $?;! C8#C;
= />= D> #B @# = %B?C = (F BC= ;
= >=# +? B ; D> (# #C# = ; = #B #
#B 0?; ?! (! ?= @8 ; #? D JC A @?<L
K # =# D> #B @#4 = ; = #? < L
= #; # JC!# @ #B ; ?= = < == ; #B ; = K;?9
> 4 B 88 ? #B < #? #B K ; ?= #B ; =
@?=@ ;= C< < ;8>4 = @C! 88 #B ; @# ?= 9
= C! = #B / ; < ! E #B?C# D> =A #B
; ; ?! #B ?884 !?; #B ; < ?; > = !! @L
#C 86 # #C# ?=

%! ?; #B JC!# @ ;> = #B AB8 =

(& *) &0 + = 0 + %B
1 =A = 3C = # !?; #B <?; !! @#C 88
CKK; ! =A ?! #B + K; # ?= = ?DD ; ?
!; NC =#8> @?< < ## = #B AB8 = #? #B K; L
C @ = ;C = ?! < => ?! #B ; A?? (CD @# 4
= #? #B ; K;? @B ?! #B 0 E =) ? < = =#
?! #B 1 =A ?< ? #B ; !?; E #B @ =
@?=! =# ?! #B & # # ?! / ;8 < =# &= @# =
+ @8 ; #B # #B ; # D> ;#C ?! #B ; K; L
;?A # ?> 88 < > A; =# ?< < ! ?= ?! JC!# L
@ ;> ?= ?; <?; 4 = !?; C@B # < #B > B 88
#B ="! ##4 !?; D?C= ?! #B AB8 = 4 E #B
' #B K?E ; = @ ;> = C!C 88 = C@B
?< < ! ?= 4 = F@ K# =A #B ; !; #B D?C=
= 0 = 8> =A = @?<K; B = E #B = #B
B ; # D8 ; AB# ?! JC # @ ;>) = ; 8 K ;# = =A
#? #B & ;8 ?! ;A>8 8 ?# #B B ; # D8 ; AB#
?![JC # @ ;>) = ; 8 K ;# = =A #? => ?#B ;
E #B = #B D?C= !?; / ;? > =A = ;9
#B 8 ! #B # ! # #B # < #B ; # B 88
#B ="! ## !?; #B = @ ;> ; K; =A ?! #B !?;L
; < = + !?; ; #? A; =# ?< < ! ?=
!?; #B K @ ?! #E? > ; !?; #B D?C= =?#
D? F@ K# 4 #B !?; K ; ?= B =A ; AB#
#?9 #B B ; # D8 JC!# @ ;) = ; 8 B 88 # #B
< # < A; =# C!! @ =# ?< < ?= #? #B
< K ; ?= 7 #B # B 88 D = < D> #B ; L
= = #B !?; ?< < ! ?= !?; #B ; ; K @L
D?C= 4 #? #B !! @# #B # 88 @# =A ?! @?=L
=#4 #B !?; + K; # ?= = ?DD ; < >
D #B <?; !! @#C 88> KC= B = ; #; = D>
;#C ?! #B ; # ?> 88 C#B?; #> #? D
F ;@ D> #B ?< < ! ?= ; = + KC#
?! JC # @ ;>4 = < == ; D? FK; E #B?C#
K; C @ 8E > #K #B EB?8 !?; / ; ?= =
0?; ?! A 8 # 4 = 8# ?#B ; ?! #B ; ; 88
; K @# AB# = JC; @# ?= = 8 ? ; L
; =A #B ; AB# ?! / =# ?= !?; ! !# = > 4
= #B ; AB# #? ' & @B # = ?#B ; !? 89
@@?; = ! ; ; !?; #B = !?; 4 #B ;
E #B @ = @?= =# !?; ? B ; L
D> ; #B @# ?! / ;8 < =# = %B?C =
(F BC= ; = %B ;#> %B; A = # #B 8 =9
A; A?;4 = #B # =?#E #B # = =A #B < E ; L
@ = = #B > ; = #B?C = (F BC= ;
(F#> ?= 2 B @B @# @ ! ?;> #B ; #
B ; D> ==C8 = < " ?> = #B ; J 9
@?= ; =A #B # #B F# = =A ?! @# < 0
= =# 8 = = #B ; B !# = !?; #B < ?;

!! @#C 88 ; K; =A ?!%B !# = + K; # ?= = #B AB8 = < > 8 ? D 8AC8 ;8>C !C86 !?; K; ! ; =A?!#B KCD8 @" K @ ? #B ; !?; B ; L D> F# = #B < #?#B @ ?!#B KCD8 @" K @ 4 = !?; K; ; =A #B ; ?!4 E 88 #?#B @ ?!#B %B !# = + K; # ?=

%Q @?<< = # ?= =! ?; ?!J < & ;8 ?!* *?;#?C=

. & %#B / # # ?= A = = #?#B ; [7 4 % ?!B ; AB# 4 D !?; #B O?; ?!(! ?< = #B ; B =A D = =# ?<K ; =@ < # #B # # < !?;55#B & ;8 4 #B O?; = !! D;C > 0 = #B?C = F BC= ; = F#> B>= 4 A ?C# #B! ; + @; # ; C@ =A #B < 49CK?= C@B ; ?= #B #B = 1 =A P ?@ # E K8 #?# 88 A 4 = EB ; ?!#B C<E %B # #B + L K? # ?= < D> #B 1 =A #?#B & ;8 ?!#B * 8 E ?!#B == F K;?K ;#>4 = B =?# D = < !?;A?? = = C! ! ; # = / ;8 < =#4 =?; !# ; + ! ?8C# ?=4 9EB @B ?CAB#7 7#N B K;?@ #B < = !C;#B ; #B # #B + K?! # ?= ?!#B 7 * 8 E A; =# #?D B?8 = 8 = B4 EB ; #B == F K;?K ;#> @ = ?=8> B K?= #?B ?!! C4 = #B ; !?; #B 1 =A B " 2 > ; ?@" #B < D> B ?@ # ?= < ! #B > ; = #B?C = F BC= ; = F#>#E?% ?' EB @B4 !@?<K ;9 9 =A9#B & ;8 B C= ?CB# 8>9 = E ; #B # B + K? # ?= = #B > ; = #B?C = F BC= ; = !?C;#> #B; E !?;K >< =# ?!+ D# C D> #B 1 =A #?B / ; @ !8?; 4 = 8 7 !?; 8 8 ! ; =# % @" #B = # = =A = #B & ;8 K ; ?=4 EB @B E ; C! <? # ?= ;?C %B # 8D # #B 7 C! E ; =?# ! ; # = / ;8 < =#4 P = #B # #B ; E 9 l K; ?C + ! ?8C# ?=4 =?; E #B + K?! # ?= A; =# !?D B?8 = !8! C DC# B8 = B4 > # !?; @# ?!/ ;8 < =#4 = #B?C = F BC= ; = F#>#E? # !> =A = + K =8 =A FK; ! 8>E #B 88#B !?;< 8 # # " ?!!9 88A;?C= ?!&F@ K# ?=4 = <C@B 4 # =#4 #B # EB ; #B / ;8 < =# 8> = FK!?! 8> + K = # ?!#B 9 < E AB# = !?;@ 4 !#B @# K = E #B4 = EB @B ; =7 ? ! ;; ; @ = 4 B D = KC=@#C 88> ?B9 ; 9O " #B ; FK; ! @# ?!/ ;B < ; =#4 J < #B (F#B4 / ;8 < =# !?C;# =#B B K# ;# #E?BC= ; = !?C;#> #B; %B # EB ; # ! @ # ?= = = + K?! # ?= ; < E #B FK; ! = K @ 88 + K =! # ?= ?!#B A = ; 88 O E 4 = D> #B @ =!#B & # # #?B K @ 88> < =# ?= #B ; =4 #B # ! @ # ?= = + K?! # ?= ; =?# #?D NC ;; 88 4 BC# ; 8 8> #B ; !;?< F@ K# 4 EB @B F @#8>#B & ;8 ?! ?;#?= ; AB# = #?#B 1 =A ?@ # ?= # ; @B =?# #B & ;8 K ; AB#5 B 49 @ C ! ; # ?@ # ?= ; C= ; #?? #?D ?! + 4 EB ; D> #B ;?E= 8 4 EB ; = #B + K?! # ?= < #?#B & ;8 4 #B ; E =?

K;? @C# ' #B ' K ; ?= ' AC 8#>' #B ; ?i ' D i?; ' #B '
9 A #; # ' ?i' #B ' D?C= 4 @?=i?;'<' #?' #B ' # =?; '
?i'#B ' @# 4'4 = ' 88?E =A'#?' #B <' ?C#' ?i' #B '
ii>= ' = / = 8# ' #B # B 88 D ' =@C:; 4 =?#
?=8>'#B ;' EB?8 '@B ;A ' = ' FK =i ' ?i' #B ' '
K;? @C# ?= 4 DC# 8i? iC@B iC;:#B ;' E ; 4 '
#B ' 0?; ' ?i' #B ;' # / ;' >' ?C=@ 88*B 88
#B ="'i ##

% =' = ## ='i ?;' ?i' + < ' ;L
A ; #&; " = ' 0 >' #8 B =

35' & %' #B ' / # # ?='A =' =' = ' =# ' #?
#B ;' [' AB' ?<< # ?= ;' B '); @ ' = ' #B '
B?=?C; D8 ' & # # ' ?i' / ;8 < =# D>' + < ' ;L
A ; # &; " = ' 0 >' 88\ B =' (B E =A'#B # ='
#B ' @# ?='i K,\ ' / # # ?= ;' = ' #B ' 0?; '
,$/ $' #B ' K? =# ?i' /;?D # ?='i D =A' D>' #B '
8 # (i ?='?i'#B 'K; =# / ;8 < =# ; < ## ' #?'
#B ' <<' i ?='?i!/ ;8 < =# KK? =# ' i?;' g
;< B =A' ?i' D # ' = =# ii>= ' = ' ii?;i C8g
0#C; 4 EB ; =' #B >' < " ' ?< ' K;?A; i 4 DC#
'=?#D; =A' # #?' 'i = 8 K?;#Z' = ' #B ' 0?; '
?' =A#?='B =A' #B =' K;? C@ ' ' A; # < =>'
K K ; 'i?;' K;? =A' #B ' K >< =# ' < 'D>' B <' ?i'
B ' i #B ;' D# 4 EB @B' @?C8 ' =?# D ' ' ?;'
@?= ;' ' =' K8 =' / ;8 < =#4 E #B?C#' A; #
8 ?i' #;?CD8 ' #?' #B ' / ;8 < =''' = '<?; '# =<'
i = ' ?B'i?;'
i?;i C8#C: '
= =#' <H
K 8'i?;'
:0 E '?i'

?= 'i?';' < '?i'0 E' = '#?' ; K?;'# #?' #B '= F#
(i ?=' ?i' / ;8 < =# ?;' ?#B ;Ɛ > 4 =' #B ' ?K# ?='
?i'#B ';' K @# ' KK 8 =#' < ## '#?' #B ' ?i';g
?i'(i ?='#?' ; @?= ;'#B '/;?@ i 4 E #B'#B 'i?;g'
' /;?# # # ?= 4 = ' #?' # ;<' = ' C8# < # 8>'
#B ; =

% &* ' J& (%*&(' AB' ?<< i ?= ;' F9' iO?; ?i4f
@C ' #B ' D =@' ?i' #B ' 0?; ' 0?> # i;?<' #B ' @H ;'
(i ?=' ?i' / ;8 < =#

8 ' ' '*=

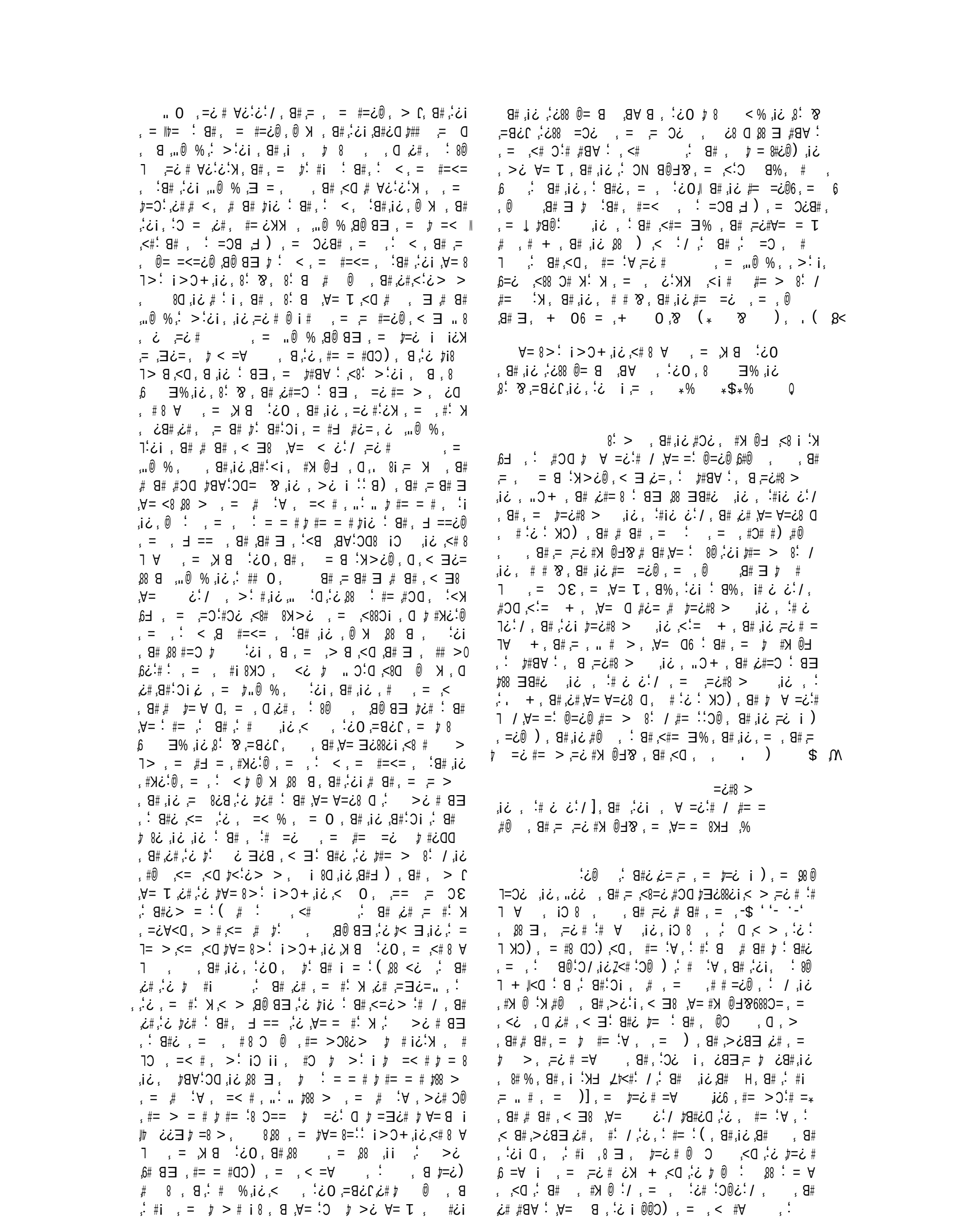
A ' ' '*= %' '

' ? !#< ! ?=' A; =# ' D>' 1 =A' B ;8 ' #B ' (L
@?= 4' ?!' #B ' # ' #B ' %E =#>' B; #!' ?!' (K# <D ;'
= ' #B?C = ' (F' BC= ; ' = ' (F#>' =>= 4' !?;'
#B ' < ' = ' = ' KC;K?! 5 EB ; D>' #B ' K ; ?= '
#B ; =' < =# ?= 'E ; ' C#B?; ' = ' <K?E ; '
#?' < " ' C@B' C8 4' ; ;' = ' ?= # #C# ?= 4' '
< AB#' K; =#' #B ' < ' =' # = '@?< =A4' = ' EB?'
=' KC;!C =@ ' ?!' #B ' ' ?=8< ! ?=' ' A; '
CK?=' @ ;# =' ;# @8 ' ?!' AC8 # ?=4' ; 8 # =A' #?'
#B ' (! ?=4' JC # @ ' ?C;#' = 4&F@B NC ;5 88'
B @B' ; ' ; # !>!' D>' #B ' (F# =#B' @#' ?!!' #B ' '
#B ; ' (! ?=' ?!' #B ' (@?= ' / ;8 < =#' ?!' 1 =A'
B '#B ' (@?= ' ' C#' #B ' ' ?<< ! ?= ; '
E ; '=?#' D8 4' #B;?CAB' #B ' B?%#= ! ' ?!' # ;B 4' !C88>'
#?' 9K ;8 # ' = ' @@?<K8 B' ?' A; #' = ' = @ ;>'
' 2?;"4' '#B ' A?? ' = ' =# ; #' ?!' #B ' 1 =A ?< '
; NC ; ' = ' #B ;' # ' D =A' =?E' !C88>' ; L
?8 '#?' K;? @C# ' ?' A?? ' ' 2 ?;"4' !?;' #B ' C= L
; 8' A?? ' ?!' #B ;' (CD @# 4' = ' #?' K ;! @#' #B '
< ' #B #' #B ;' (CD @# ' < >' D ' @?= =@ ' = '
= D8 ' ?!' #B ' A; #' B KK = ! ' = ' K;? K ; #>' <'
?> 4' D>' #B <4' C= ;' #B ;' / ;?# @# ?=' = ') ?9'
<= =#' %B ; !?; ' #B ' 1 =A' = ' 3C = ' L
4' E #B' ' = ' @?= =#' ?!' #B ' & # # ' ?!'
/ ;8 < =#' +? ') ' !C88' K?E ;' 2 ;; =#' = '
?<< ! ?=' #?' (C@B' K ; ?= 4' ' B 88' D '=?< = # '
D>' #B ;' # ' XEB ; ?!' C@B' '=C<D ;'#?' D '
' 3C?;C<' ' #B ;' # ' *B '' KK?>=#'' #?'
< #' = '@?= =' #' & =DC;AB' #B ' ! >' ?!
= '#B ; !# ;' #' C@B' # < '
= '+> # ' ' #B >' #B < 8 ' B 88' KK? =#' 2 #B7'
K?E ;' #?' #B ' ' ?<< !A ?= ; '#?' # " ' !C88' = '
F @#' %;> 88' ?!' 88' DC! 4' = ' ?#B ;!' F?;D # =@ '
?;' F @# ?= ' EB @B' ; ' K; @# ' =' K; C @ ' ?!'
#B ;' # ' 0 A 4' =' B>7' !! @ ' ?!' JC @ L
#C; ' ?;' ?#B ; ' E #B =' #B ' #B ;' =@ =#' 1 =A ?< 4!'
= '#?' # " ' %;> 88' = '*=!?;< # ?=' D>' 88' < == ;'
?!' / ;?D # ?=' #B ; = =#4' = 'B?E' #B ' ' DC! '
B ' @; K#' =4' !!= ' !;?<' EB #' # < 4' = ' #?' # " '
=?# @ ' = ' #;> 88' ?!' #B ' C#B?; ' = ' ?<< ## ; '
#B ; ?!4' = ' #?' #; = < ##' =' F @#' = 'K ;! #' @L
@?C=#' ?!' #B ' < ' #?' #B ;' 7 ' #B #' #B >' < >'
A= !>' #B ;' ?> 88' K8 C; 4' = ' A ' EB #' + L
; @# ?= ' #B ; =4' #B >' ! = ' C #' = '!?;' #B ' ! 9'
#C 88' K; =# =A' = ' ; #; = =A' #B ' < ' ='# < '
@?< =A' %B ;' # 4' E #B' @ ' = '@?= =#'
!?; ' +? ' B ; D>' C#B?; W ' = '*<K?E ;'#B '
!?; 'K ; ?= '?;' 3C?;C<' ?!' #B <'#?' < " ' C@B'
; ; 4' @# ' = ' ?= # #C# ?= ' !?;' ; AC8 # =A' #B '
< ' ='#><' @?< =A4' '#B >' B 88' ! = ' C #4' C=L
;' C@B' K = 8# ' = ' ;# ! @ # ?= 4'#?' D ' =@C;; '
D>' #B ' ?=#; > = ; 4' '#B ' T' ?<< ! ?= ; '
B 88' ! = ' = @ ! ;>' =' #B #' D B 8!' '' EB @B'
@# 4' ; = =@ ' = ' ?= # #C# ?= 4' #?' D ' < '
D>' #B ' ' ?<< ! ?= ; 4' = ' KK;? =' C= ;4'
B ' #> ' ?> 88' B = ' %B ;' # 4' E #B'
@ ' = '@?= =#' !?; ' +? ' # !>' KK;? '
= ?=! ;< 4' = '+ @ ;= ' = ' ; = '#B ' <'
#?' D ' KC#' =' &F @C# ?=4' = ' #?' B ' !C88' !?;@ 4'
#; =A#B' = ' !! @#' A = #'#B ' ?=#; = ; ' ='

#>< '@?< =A' = 'O>" E ! '#B ;' # 4' 2 #B']
@?= =#' !?; ' + ?' B ; D>' C#B?;W ' = '*<K?E ;'
#B 9(' ?<< ! ?= ; '#?'K ; !@; D ' = '! ##' ?E= '
@8 ;' = ' # =@#' C8 ' !?;'#B = ! ; ?;' JC @ #?L
; ' ='#B '1 =A ?< 4' '#?'#B ;' ?<K # =@>4' = '
#B ' = #C; ' ?!' #B ;' JC; @# ?= 4' #B #' #B ' O A '
< >' D ' #' ' ;# =#>4' = ' =?#' D ' KC#' #?' #;?CD8 '
= ' FK =@ 4'D>'D =A'@ 88 ' = '!?;@ ' '@?<K ;'
= ' ## = ' D !?; ' !! ; =#' ?C;#' !?;' #B ' < '
C! 4' B ; D>' *=B D # =A' = ' + !@B ;A =A' #B '
'JC A '#?' K;?@ '?;' # ;< = ' =' =>' ?#B ;'
@# ?= ' ?;' C! 4' #B =' EB #9 B 88' D '!?C= ' D>'
#B ' (' ?<< ! ?= ; '#?' D ' K;?K ;' = '@?<K L
=#' !?;'#B ;'JC; @# ?= ' + @8 ; =A' 88' C@B' @# '
= ' @; #'#?' DTYA =' = 'K;?=?C=@ 4'D>'#B <44'
=' < ## ; ' =?#' @?<K # =#' #?' #B ;'JC; @# ?= '#?'
D ' =C889 = ' ? 4' = ' #B ' JC A '#?' D '!> D8 '
7'#B ' < A ' = ' K; C @ ' ?!' #B ' K ;#>' A; 4'
= '#?' D ' KC= !B D8 ' #' #B ' AB#' ?!' #B !O?; '@!'
/ ; >' ?C=@ 88' !?;'#; = A; ! =A'#B ;'JC; @# ?='
= '#?' #B ' !! @#' ?' C #' = '= @ ;>' ' 2 ?;"'
< >' < #' E #B' =?' ?D #;C@# ?=' !;?<' #B ' = A8 L
A =@ ' ?;' bK#' ## = =@ ' ?!' #B ' !?; ' ?<< !L
?= ; ' %B ;' !# ' E #B' @ ' = '@?= =#'
!?; '(# #C#' ; = ' = '+ @8 ; '#B #'#B ' ?<L
< ! ?= ; 4' EB?' E #B?C#' ' C #' = '8 E!C8' F@C '
X#?' D ' 88?E ' D>' C@B' ?!' #B ' ?<< ! ?= ; !EB?'
B 88' < #'' B 88' =?#' ## = '#B ' +> # '?!' < # =A!'
KK? =# 4' ?;' #?' D ' KK? =# ' !?;' @ ;;> =A' ?=' ?!!'
#B ' 9 2 ?;"4' B 88' =@C;; ' #B ' K >= ' ?!' = '
BC= ; ' /?C= ' (@?#' <?= >4' #?# ' NC?# 4' #?9'
D ' K? '?!'D>' #B ' ?<< ! ?= ; 4' '#B >' B 88'
#B ="' C #4' 9 = ' !?;' EB @B' 0 ## ; ' ?!' ?;= =A'
= '/?>= =A' ; 'B ; D>') ; =# ' = '#' 'B ; L
D>' @8 ; 9'#B #'#B ' ?<< ! ?=' B 88' @?=# =C '
= ' = C; 4' C; =A'#B ;' # ' K8 C; 4' = '
>' = ' EB 88' #B ' < ' B 88' D ' ; @ 88 ' ?;' !9'
@B ;A 'D>'#B ;' #

%' = =#' /;?@C; #?; ' ?!' ! A= # ? ;
= '/; @ K#'?!' (8 =

' ' (& *) &' 0 +' ; 'O + '#B ' Ve'
1 =A' = '3C = ' # ' ?= ; =A#B #' /;?9'
@C; #K; ' ?!' A= # ?=' = '/; @ K#'?!' (= '
?' D @?< ' ? 'D>' #B ' #B'?!' #B '); =# ; 4' '
E 88' '?!' #B '/ ;# 4' =' EB? '! ?C; '#B >' ; '
A; =# 4' 8D #' #B >'D 'A; =# ' =' ; <' C <4' = '
EB?88>' =' ! ?C; '?!'#B ' @ ;4' = '#B #'#B ; L
D>' 'A; #' = 'C== @ ;>' &FK =@ ' '?@@ ?= '
!?;' ?D# = =A' #B 'K;?@C; #?; ' = 'K; @ K#' '; 9'
=C '%B ; !?; '%B ;' # 4' E #B' @ ' = '
?= =#' ?!'#B '& # # '?!'/ ;8 < =#' +? '(# #C#'
; = ' = '+ @8 ; '#B #'/;?@C; #?; '?!' AL
= # ?=' = '/; @ K#'?!' (= 4' #B ;' 8; >'A; =#7'
4'?;'#?'D 'A; =# 4' B 88' =' 88'# < '@?< =A'@ =9'
=C ' ='!C88'!?;@ ' = 'D ' C!! @ =#' 2 ;; =# 4' =?#'
?=8>'!?;'< " =A'?!' A= # ?= ' '# " =A' (9'
= (4' =' ! ?C; '[?!'#B 'K ;# 4' #?' EB?<'#B >' ; '
?;' B 88' D 'A; =# 4'DC#'8 " E ! ' =' ! ?C; '?!'#B ;



' ' '*=) ' ' !

D>5 #B ' ' = E' % @"4 #B ' ' & ;8 ' ?!' %E 9'
8 4 B ' D =A' ?=' 8 ! 4 = ' ! 8 =A' ?!' B <' D>' 9'
@ ! 4 #B ' ' J?B=' 0?; ' >' ?!' # ;' = ' B '
!?; ' ; ' ?D8 A ' =' K >< =# ?!' = ' BC= ; '
;" ' ?!' % @"' + C# ' # 2 B # C= >' > ;8>4 C;L
=A' #B ' K @ ' = ' @?=# =C =@ ' ?!' #B ' % @"4 = ' #?'
; 8 ' #B ;' # ' ?!' 8# = # ; ' (# K = 4
CA< =# # ?= 4 ?<<C= ?=' &8 < =# ' = ' ?#B ;'
?; = ;' C;#B = ' = ' *<K? # ?= ' C ' !C;#B7?!' #B '
' 0?; B K' = ' A 8 # 34 EB @B' #B ;[# K ' 0
E ; ' 8> D8 ' #?' K >' ! ;#B' ?!' #B ' < B4 #B ;' !?;' '
0 = ' ?;' % >! 4 = ' #B # !?;' #B ' B ' '> ; ' ?!'
#B ' K; =# % @"5' EB @B9#B ;' # ' #B ;'
; ' = ' (C@@ ! ?; ' =' #B ' ; AB# ?!' #B ' ' 0?; 9'
B K' = ' ; A 8 #>' ?!' +C<! ;<8 =A' ; '9A; @ ?C 8>'
K8 ! ' #?' ?D8 A '† B = 8 (' #?' E<;; = ' # 8#
B = ' = ' A = # 8#' 8>4 ' 8 " E ' #?' !; '
= ' ; 8 ' #B ' < ' ?!' 8 ' $ 4 / = ?= 4 8?@ 8#
(A= < =# 4 K ; # ?= ' ?!' #B ;' # '
' ?C 4 CKB?8 =A' ?!' #B ' !! D; @" ' ?!' 1 ;" ' = '
8#' ?#B ;' DC;#B = ' EB # ?< ;' C 9 = ' E?=# #?'
D ' K > ' !C;#B' #B ; ?!4 F@ K# #B ' K ;# @C8 ; '
D? K #' *#' ' 8 " E > ' #B ; D>' K;? > ' #B #
#B ' @@ K# # ?=' ?!' #B ' ' % @"' D>' #B ' ' J?B='
& ;8 ' ?!' %E 8 ' = ' J?B=' 0?; ' >' ?!' # ;'
B ' ?=4 B?C8 4=?' E > ' K; C A ' #B <4 #B ;' ; '
=?;' (C@@ ! ?; ' ?!' =>' !?;< ;' B ; # D8 ' AB# 4 ?;'
% @" ' ?!' 0 = 4 % >= 4 ;' =>' ?#B ;' + C# ' !! @ '
?;' AB# ' EB # ?< ;' ?!' #B ' ' 0?; B K' = '

= ' ?= =# !?; ' 2 ' ' ! ') ; =# = ' !?;4#B <'
0 = ' #B ;' (C@@ ! ?; ' + @ ;= ' = ; = ' #B #'
#B ' K; =# # ! @ # ?=' ' = ' B 8# D ' ' 8 '
!! @#C 8# = ' C!! @ =# #?' #B ' ' J?B=' & ;8 ' ?!'
%E 8 ' = ' #?' #B ' ' J?B=' 0?; ' >' ?!'
;' B ' ?=' = ' B ' !?; 4 ' !'#B ' = E' % @"'
8!' @@<# = =A' #B ' /;?;?A # ?=' = ' # ! @ # ?='
?!' #B ' !?;< ;' % @"4 E ; 4 B ; =' # 8 =A#B4 # '
;D?' =' ;DC<' = ;# = ' =A;? 4 EB ; = =#
C;' ' (? ; A= ' 0?; ' = ' 0 >4 E #B' @ '
= ' @?= =# !?; 4 !?;' #B < 8 4 = ' #B ;' (C@L
@ ! ?; ' B ' K = 4 = ' D ' #B ;' K; =# ' L
K = ' #?;' ;' '

< *+ '
+ ' &'
1 *' +,'
7 '=+*.'
*7 ' '
0 ' &'
6 0

%*$* %* ' =' ! ?; ' ?!' ;A ; #
?C=# ! ' ?!' ?#B ' Q' J?B=' 0?; ' 0 8>' B ;'
?=' I!' #B ' 0 = ' ?!' A' = ' ?8 =

' ' (& *) &' 0 +' = ' 0 + ' = ' V!
& # # ' ?!' / ;8 < =#' K; ! =#8>' @?= = ' D>' #B ;' '
# ' K @ 8 C#B?; #>' B > ' ; # ! ' = ' KK;?9'
=' = ' B ; D>' ; # !>' = ' KK;? ' = ' B ;# ;' ?!'
? ?' + < ' ' @?=# = =A' /; @ K#' ?!' (! = ' A; =#L
' D>' #B ;' !# 4 C= ;' #B ;' AB= ! ' A; #
(8 ' D ; =A' # ' #' 2 B # B 8#' #B ' %E =#>' =>=#B'
0 >' ?!' ? <D ;' = ' %B?> = ' 9 (F' BC= ; '
>=# ' #E?' > ; 4 #?' = ' b' ! ?C; ' ?!' ;A ; #'
?C=# ! ' ?!' ?#B ' = ' =A#?=4 ' ;' ?!'
% 8 ' ; ' = ' #?C; ' #?' 8 <N!# J?B=' + C" '
?!' ?#B ' 0?; ' AB' B =@ 8?;' ?!' #B ' 1 =A;'
?< = [8 ! ; =#4 = ' J?B=' 0?; ' 0 8>' B ;' '+ - '
8 E! 8' ?=4 9 = ' #B ' ; ' < 8 ' ?!' B ' ! +%'
EB 8" ' ! 8A =A' #B ' ?#B ;' ; ' < 8 ' = ' ?!' % 89'
A 4 C@@ =A' =' #B ' # #8 ' A= #>' = ' # # ' ?!' 0
?#B ' = ' B ' A= > ' EB # ?< ; = ' ! 4
B ; # D8>' = ' ;; < D8>' !' 8#' = ' B 8#' #B '
%?E=' = ' 0 = ' ?!' AA4 9 #B #B ' # >= ' #B ; L
?!4 < 8= 4 <C8#C; 4 C@" =' = ' NC 8# ' ?!' #B '
< =4 @? 8 4 @? 89B CAB 4 B?C! ' D AA =A 4 > ; '
= ' B 8#' K ;# = =# 4 8> = ' E #B =' #B ' (B ;; !! ?< '
?!' !! ! 4 = ' D?C= ' < #B ' = ' < ;@B TT =' < =L
= ;' @?=# = ' =' #B ' ' B ;#?;' ' 8 ?' ?!' 8#' = '
B 8# 9#B ' %?E=' = ' 0 = ' ?!' ?8 = 4 E #B' #B '
>= ' #B ; ?!4 ' E 8#' K ; ?= A ' ' @ ; A 4 @? 8 4
@? 89B CAB ' #; @# ' <C8#C; ' = ' B 8#' K ;# = =# ' '
?!' #B ' < =4 EB 8" ' E † = ' K;?K ;' K ;# 9 = ' K ;L
= =# ?!' #B ' 0 = ' = ' ;?= ' ?!' ; ?C= ' 8> = '
E #B =' #B ' ' (B ;; ! ?< 4 E #B' !C ' ' K?E ;' K; 9'
8 A ' = ' 8 D ;#>' ?!' ## =A' ?E=' (=" 4 = ' E?;" 9' '
=A' ?!' = 4 2 >' ! ;' = ' 0 ' ' #B;?CAB' =>'
K ;# ' ?;' K?;# ?=4 ?!' #B ' 0 = ' = ' ;?= ' ?!' ;L
?C= 4 !?;' #B ' <?; T !>9E == =A' ?!' #B ' ? 8 ' ?!'
#B ' ' 0 = ' ?!' AA' = ' ?8 = ' =' < == ;' '
8!?' @?=# = ' =' #B ' ' B ;# ;4 ' !?;' #B ' K; =L
@ K 864 = ' ?!' #B ' ' 0 = ' = ' ;?= ' ?!' ;9

U /

? = ¢ @?<K; B = =A' #B ' ; 88'%?E= ' 0 = ¢
>= ' 8= ¢ ? 89B CAB ' = '?#B ; ';#B ; =' K 9
@ i> ' =' K @ 88 2 ;; = @ ' = ' (@C; #>' ;?i' #B '
#B ' '0 = ' = ' ;?= ' ;?i' ; ?C= ' =' i; '
D8 =i0B i?;' K >< =# ?i' = ' K;'?K?;'# ?= 88 K ;'# '
@?;; K?= =A' #B ; #?¢ ?i' = ' K ;' ?i' A 8#' KC;; '
K > D8 ' i?;'#B ' ,B 88 0 = ' = ' ;;?= ' ?i'
; ?C= ¢ ?i'D8 =i@B C#>¢ i' #'D ' " '0 = '
#B ' ' 0 = ' ?i' AA¢ E #B' #B ' @? 8 ¢ @? 89
B CAB ¢# >= ¢K; 8 A ' = ' K ;'# = =# ' ?i'
=' E ; ¢ i?;9K >< =# ?i #B ' ; AB# ' = ' ; @ '
C ' = ' E?=#' = ' EB ; D>' #B ' ;' # 'i?;'
#B ' @ Ci ¢ = ' CK?=' #B ' @?= ; # ?= ' < =# ?= '
=' #B ' ' B ;'# ;¢ @B =A ' #B ' B?8 =A' ?i' #B ' '
0 = ' ?i' AA¢ @? 89B CAB '# > ' = 'K ;'# = =# '
?i'#B ' < =' i; ' <K8 ' 2 ; ' #?' # F# 2 ; ' i?;'
K >< =# ?i' #B ' C<' ?i
(@?## ' <?= >' >' ;8>' C; =A' #B ' 2 ; ' = ' ?=L
=#;>¢ 8i ' <C@B' i?;' #B ' 8 i' #B ; ?i' = ' ?i'#B '
C<' ?i' ' <?= >' i?;
i?;' #B ' < ;:; A ' ?i' #B ' ;' ?;' ; ¢ EB =' = '
B?E' ?i#9 ? ;' #B ' < =' B 88 B KK =' #?¢1 88¢¢ = '
K = =A' E #B' #B ' ; ' #?' =# ;¢ =?#E #B # = L
=A' i' #B ' =?; #>5 = ' @?=# = =A' = ' K;'?< '
¢ D ' #B ;' # ' #?' ¢ # >' B ;'# ;' = '
*=i i#< =#¢ @?=# = =A'#B ' '@B =A ' ?i' ?8 =A'
i;' <K8 ' #?' # F# 2 ; ¢ =' #B ' K; i =# (i ?;'
@ i ?;' =' < == ;' i?88?E =A' ' #B ' ' 0 = '
?i' ?8 =K E #B' #B ' @? 89B CAB ¢¢ # >= ¢ K; 9P'
B CAB ' ' 0 = ' ?i' AA¢ E #B' #B ' B 88 B
8 A ' = 'K ;'# = =# 9 ' = ' K ;'# ' = ' K = @8 ' ?i'
#B ' '0 = ' ;?= ' ?i' ; ?C= ' =' i; '
D8 =i0B i?;' K >< =# ?i' = ' K;'?K?;'# ?= 88 K ;'# '
@?;; K?= =A' #B ; #?¢ ?i' = ' K ;' ?i' A 8#' KC;; '
0?' ' < =#B' ' ,B 88 EB @B' ;?= ' =' ;?= ' ?i'
@ ' ?8 (C@9' ' ?C= ¢ ?i'D8 =i@B C#>¢ i' #'D ' " '0 =
; ¢ =# ?i' #B ' ;' ?i' AA¢ E #B' #B ' @? 8 ¢ @? 89
B CAB ¢# >= ¢K; 8 A ' = ' K ;'# = =# ' ?i'
=' E ; ¢ i?;9K >< =# ?i #B ' ; AB# ' = ' ; @ '
C ' = ' E?=#' = ' EB ; D>' #B ' ;' # 'i?;'
#B ' @ Ci ¢ = ' CK?=' #B ' @?= ; # ?= ' < =# ?= '
=' #B ' ' B ;'# ;¢ @B =A ' #B ' B?8 =A' ?i' #B ' '
0 = ' ?i' AA¢ @? 89B CAB '# > ' = 'K ;'# = =# '
?i'#B ' < =' i; ' <K8 ' 2 ; ' #?' # F# 2 ; ' i?;'
K >< =# ?i' #B ' C<' ?i
(@?## ' <?= >' >' ;8>' C; =A' #B ' 2 ; ' = ' ?=L
=#;>¢ 8i ' <C@B' i?;' #B ' 8 i' #B ; ?i' = ' ?i'#B '
C<' ?i' ' <?= >' i?;
i?;' #B ' < ;:; A ' ?i' #B ' ;' ?;' ; ¢ EB =' = '
B?E' ?i#9 ? ;' #B ' < =' B 88 B KK =' #?¢1 88¢¢ = '
K = =A' E #B' #B ' ; ' #?' =# ;¢ =?#E #B # = L
=A' i' #B ' =?; #>5 = ' @?=# = =A' = ' K;'?< '
¢ D ' #B ;' # ' #?' ¢ # >' B ;'# ;' = '
*=i i#< =#¢ @?=# = =A'#B ' '@B =A ' ?i' ?8 =A'
i;' <K8 ' #?' # F# 2 ; ¢ =' #B ' K; i =# (i ?;'
@ i ?;' =' < == ;' i?88?E =A' ' #B ' ' 0 = '
?i' ?8 =K E #B' #B ' @? 89B CAB ¢#

%*$* %* ' =' i ?; ' ?i' #BN' C:;AB'
?i'#B ') =?=A #

V ' ' (& *) &'0 +' = '0 + '%B '
1 =A' = '3C =' # 4 E #B' @ ' = '@?=9'
=# ?i' #B ' & # # '?i' #B ' K; =# / ;8 < =#
; # i>' K:;? ' = ' K ;K #C 88>' @?=i ;< ' #?' #B '
A #; # ' ; #?; ' = '+ @?= '?i'%; 'E #B '
=?=A # ' i?;' iB = 8 44 = ' =' = < '?i'
#B '*=B D # =# ' #B ; ?i4 = ' #B ' =' Ci ' #?' D ;'
NC ;# ; =A' E #B' #B <4 = 9 @#' ?i' #B ;' # '
/ ; >' ?C=@ 884 =' #B ;' i ?C; 4 ?i' #B ' # 4#B '
(F#B' >' ?i' JC= 4 = '%B?C = ' (F' BC= ; '
= ' >=# '#B; '> ; >' EB @B4 CK?=' KK8 @ L
?=' < '#?'#B <'D>'#B 'i?;' = < 'K ; ?=' 4#B >'
' #B ' ; ?= ' #B ' ; =' iC ' ' =# ?= ' ;L
=' 2%4 ?<< i ?= # ' i8(@ =' ' E 88 ?;i ' '
$??# ?;' +; A??= ' #?' K;? ' #B < 8 ' E #B'
@? 8 ' = ' @ = 8 ' = #B ;' ; K @# '8? A =A ' ?;'
NC ;# ; ' # #B ;=' ?E=' @B ;A ' = ' ?; = ' #B '
' 88 ' ?i' #B ' =?=A # ' E #B' #B ' ?<9 9
C # = ' <?' i>' #B ' K; @ ' ?i' ;>' ii @ ;'
8? A =A ' @B <D ;' = ' # D8 ' < 884 ii ;' =A' #?'
#B ' ?; = ;>' ; # ' #B ' 8? A =A 4 @B <D ;' = '
D8 ' ; # #5 = '?; = ' #B ' ii @ ;'
#?' K >4 @@?; =A' #?' #B ' <? i ' K; @ 4 #?'
< = ;' =' B i' ?;' C@B' ' B ' B?C8 ' KK? =#' #N'
C ' ' 'T ;D?' =' ;DC<'!B ; =' FK; # = ' =9'
E ; ' i' #B ' ?E B?8 ' @#?i' ?C=@ 86' =#B ;'i ?C; '
i' #B ' ?C=@ 88 ?i' &' =DC;AB' &; @# =A'
#; # ' = '%?E=' ?C=@ 88 ?i' & =DC;AB' @# =A'
#B <' =' ; ?C ' ?' =A' #B <'D>'#B ' A L
= ' (88 ?i' Ci 'A; =# '#?' #B <'D>'#B ' A L
9#B' 2 ; # 4 & AB#' = ' & =# ' i?88?!b> =A' '
A8?; ?C ' <?;>4 = ' ; 8> D8 ' =' K >= =# ?i'
'@?= ; D8 'K ;# ' ?i' #B 'DC;#B = '!K > D8 'i?;'#B'
?i' #B ' 9 C:;AB' ?i' & =DC;AB!D ' E #@B =A '
E ; =A' = '?#B ;' C# 4 88?' B>' ?; ' ?i' #B '
?#B ;' *=@?;K?; # ?= ' ; 7 8> D8 ' =4 0 = ' %B ;'
S# ' D =A!E 88 =A' #B #'#B ;' (88?i' Ci ' = '
88%'?#B ;'; AB#' = 'i; ?< ' A; =# '#?'#B <' ?i'

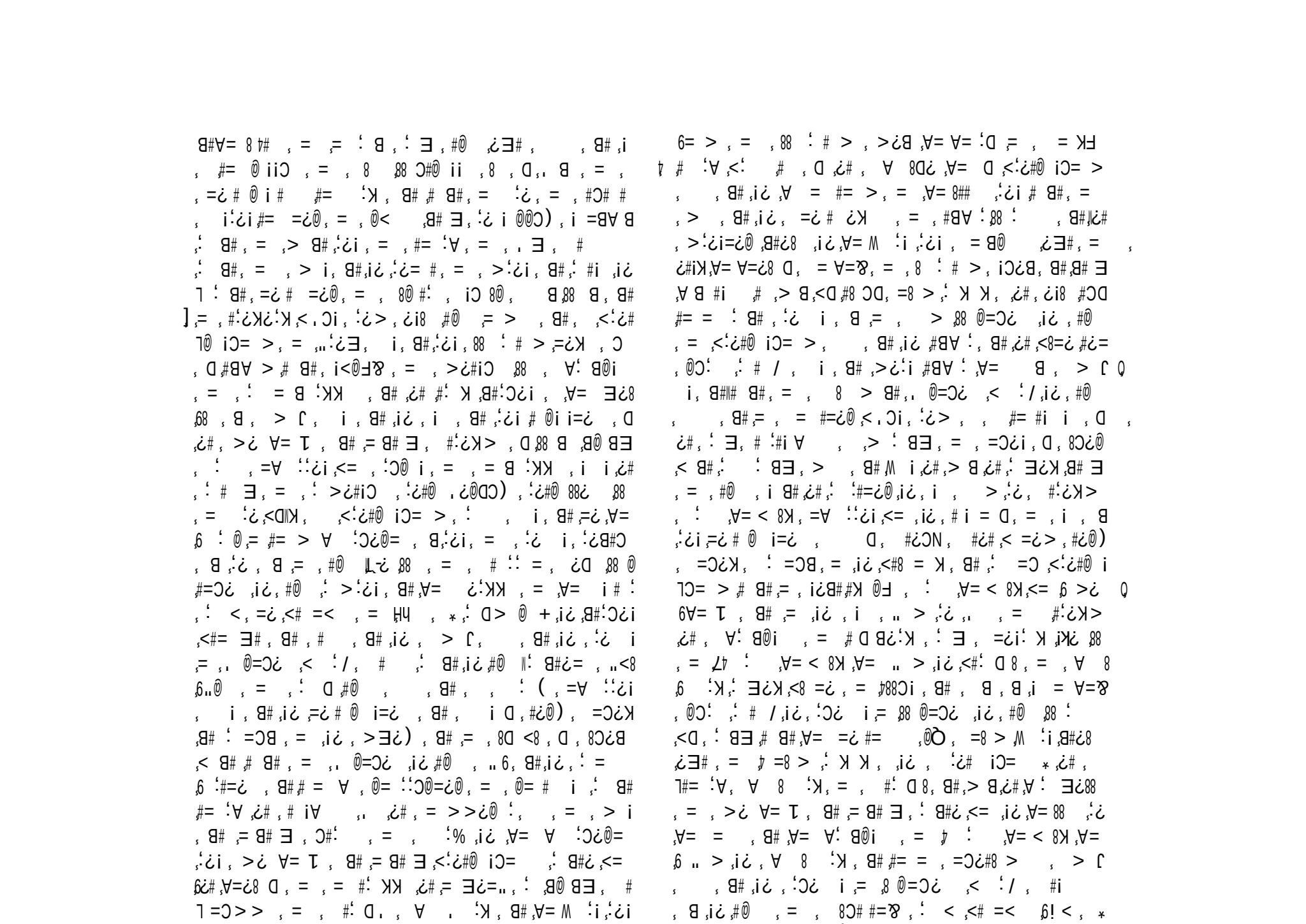
D>'#B 'K; =#' K =i 'i?;' ;' !NC ; =A' = '
@?<< = =A' #B ' A #; # ' ?i' & =DC;AB4 K; L
=# = '#?'@?< 'i;?<'# < '#?'# < ' EB =' ; L
' <K8>' = ' K @ D8>4 ' =>' ?#B ;' *=@?;K?; L
?=' E #B =' #B ' ' C:;AB'%B ; i?; '%B ;' # 5
E #B9' @ ' = ' @K; =# ?i' #B ' & # # ' ?i!'
/ ;8 < =#' B ' # i> ' KK;?' =' Q ?=i ;<L
' 0 " ' D>'#B 'K; =# ' #B >' # i>' KK;?' '
= 'i?;'#B ;' = '#B ;' AB= i ' (C@ 8 ?; 4 E#B
@ ' ; ' @?= =# i?; 4 K ;K #C 88>' ?=i ;< '
' = ' =' i ?C; ' ?i' #B ' + @?=4 ?F i# # ;' = '
; < = =#' ; #B; =' = ' < <D ; ' ?i'#B ' '*=@?;9'
K?; ?=' ?i' ii; < =' ii8 B ; ' ?i' & =DC;AB' K 9'
i =#' = ' #?' @?< '#B ' B 8'4) ; =# 4 AB#' K; 9'
8 A '*< <C= # ' = ' C 8# ' A; =# '#?'#B <'
D>'#B ;' # ?> '' /; @ i ?; 4 #B ' O?; '
?i' / ;' >' ?C=@ 86' ?;' A #; # ' ?i' & =DC;AB'
8; >!' ; # i> ' =' / ;8 < =#4 ?i' EB # ?< ;'
+ # 4 % =?; ' ?;' ?=# =#' #B!' < ' D 4 =' #B '
B 88 B '@8 Ci ' ;# @8 4!@?= # ?= 4 # =?; '#B ; L
?i' = ' @?=# =#' ?i' #B ' < 4 @?=i?;= ' #?' #B '
;' #B ' # =#B' + @?=; '?i'#B 'i?C;'# =' *=@?;K?8
; # ?= ' ?i'#B ' ' C;AB4 @?=i?;<'#?'#B ' (##' = '
+ @; # D #; 8'?i' 1 =A'J < '#B ' (F#B'?i' !'
A8?; ?C ' <?;>4 = ' ; 8> D8 ' =' K >= =# ?i'
'@?= ; D8 'K ;# ' ?i' #B 'DC;#B = '!K > D8 'i?;'#B'
?i' #B ' 9 C:;AB' ?i' & =DC;AB!D ' E #@B =A '
E ; =A' = '?#B ;' C# 4 88?' B>' ?; ' ?i' #B '
?#B ;' *=@?;K?; # ?= ' ; 7 8> D8 ' =4 0 = ' %B ;'
S# ' D =A!E 88 =A' #B #'#B ;' (88?i' Ci ' = '
88%'?#B ;'; AB#' = 'i; ?< ' A; =# '#?'#B <' ?i'

!? A ' + # ' #B ' >' ?!
> ; ' *# <9' = ' @#' ?!'#B ' ' %?E= ' ?C=@ 88' ?!'
& =DC;AB' + # ' #B ' %E =#>' (=#B' >' ?!7
;@B' = ' #B?C = ' ! ' BC= ; ' = ' =#>'
#B; ' > ; 4' EB ; D>'#B >' # !>' ; 88' !?;< ;'
@# ' A; =# ' D>' #B <4' #?'#B ' ' *=@?;K?; # ?=4'
+ !@B ;A =A' 8 > =A'E #B =' C;AB4' 88 =A'?!!'< ;9'
@ #' > 4' ?;' D; " =A' =' 8 ! ' K @ ' #B =' 3C ;9'
# ; ' = ' ?!' = E' A =' #B ' ' A #; # ' = '
%?E=' ?C=@ 88' ; = ' #B #'=?' < == ;'?!' / ;L
?= ' (88 ; ' ?!' !!8 B' =' #B ' 0 = ' ;@ #' D>'#B <L
8 4' #B ;' (; =# 4' ?;' =>' ?#B ;'K ; ?=' B?C8 '
D; "' #B ;' B 'EB # ?< ;' ='8 ! ' K ;# 4' #B ='
3C ;# ; ' ?!' ' ;@ ! ' = ' 8 ' #B #'=?= ' ?!'#B <'
D>'#B < 8 4' =?;'#B ;'!?; ' B?C8 '# " 'CK?='
B = ' #?' 8 >' #B ;‖ ?8#' (B K' ?;' ?#B ;' # 884'
E #B =' #B ' ' C;AB' ?;'!; ?< ' #B ; ?!4' DC#'#?'
D; =A' #B ' = =' ' = ' 8 = ' #?' #B ' < ;@ #4'
C= ;T#B ' K = ' ?!' @B # =A'?!' 88' C@B'! 8 B4' '
#B >' B?C8 ' B ' E #B =' #B ' C;AB' !?;' #B ' # < '
*# <' = ' + @; #' K;?=?C=@ ' D>' #B 9' 0?; ' ?!'
/ ; >' ?C=@ 88' + # ' #B ' (=#B' >' ?!'JC= '
= ' #B?C = ' ! '9BC= ; ' = ' =>=# ' ! '> ; '
=' ! ?C; ' ?!' #B ' + @?=' = ' ; < = =#'!!; < ='
!!8 B ; ' ?!' #B ' ' *=@?;K?; # ?=4' EB ; D>' #B '
‖' 0?; ' ?!'[/ ; >' ?C=@ 884' !# ;' ' !C88' = '
<K8 ' + D # 7' = =#' #B ' !?; ' AB# ' D #E F#'
#B '!!; < =' = ' <!; < =' !!8 B ; ' + ' ! ? 8A '
#B ' ' *=@?;K?; # ?=' !;?<' #B ' ?<K8 =#' A ='

7 =9D>' #B ' ' =!; < =4' = ' + @B ;A ' #B ' ' =!; L
< =' !;?<' 8 > =A' ?!' #B ;' # 884' E #B =' #B ' '
C;AB4' = 1O D ;#>' #B ; ?!4' = '!;?<' D; " =A' ?;'
C#8 =A' #B ;' !!8 B ' ' '@?=# = ' =' #B ' !?; '
7 @# ' *# <' =?#B ;' @#' ?!' #B ' ' %?E= ' ?C=9' 7
@ 884' # '#B '!?C;#B' >' ?!' CAC #' = '#B?C = '
F' BC= ; ' = ' #E =#>' > ; 4' EB ; D>'#B ' ' =9'
!; ; =' !!8 B ; ' =' #B ' 0 = ' ;@ #' ; ' KK? =#L
'#?' K >' #?' #B ' !! ‖ < =' ?!' #B ' ' *=@?;K?; # ?=' 0
= ' K ==>' !?;' 8"' (E>= 4' 8"' ?8#4' 8"' # =' (B K'4'
= ' 8"' #E =#>' 0 <D ' #B #' B 88' D ' D;?CAB#' ='
D>' #B <4 @?=!?;< ' #?' C! ' = ' @C #?< 4' = '#B '
0 < =' #?' D ' KK8> ' !?;'#B ' ! ' ?!'#B 'K??;' ?!' #B '
' *=@?;K?; # ?=' = ' KK? =# ' #B ' !!; < =' # '
#' #B ' J ;@ #' =' 88' # < ' #B ; !# ;' ' !?;L
< ;8>' *# <' = ' @#' ?!'#B ' ' %?E=' ?C=@ 88'
?!'& =DC;AB4' # '#B '%E =# #B' >'?!' CAC #'
= ' #B?C = ' F' 9BC= ; ' = ' ! !#>' F' > ; 4'
EB ; D>' #B >' # !>' = ' KK;? '#B 'B 88' !?;< ;'
@#'A; =# '#?' #B ' ' *=@?;K?; # ?=4' = ' ; ='
#B ' 8 !! ' ?!' #B ' ' C;AB4' #?' KC#' #B ' < ='
=' F @C# ?=' @?=!?;< ' #B ; #?4' =' 88' K? =# ' *# <'
= ' @#' ?!'#B ' ' % 2=' ?C=@ 884' # ‖'#B ' '
#E =#>' >' ?!' CAC #' = '#B?C = ' F' BC= ; '
' = ' ! !#>' F' > ; 4' EB ; D>' #' '(# #C# ' = ' ;L
= '#B #' #B ' B 88' 0 = ' ;@ #'!!8 B ; ' " K'
?=8>'#B; ' < ;@ #' > ' ='#B ' E "4' ' #C >4'
#BC; >' = ' #C;= >4' @?=!?;< ' #?' #B ' C! ' ?!'
< ;@ #' ' =' ?#B ;' !; ' K8 @ ' ' #B ' ' @#' ' = '
+ @; #' ='#B < 8 ' <?; ' !C88>‖D ; ' = '#B ;'
# ' E #B' @ ' = ' @?= =#' !?; ' 2 88

d %' & 1' #B ' ‖7' >' ?!' JC= ' G.' %B ;' D =A' *+ , +C
= ' # ! @ # ?=' K; =# ' = ' K #' =' / ;8 < =#' & '= , .'
=' ! ?; ' ?!'#B ' !!; < =' !8 B ; ' ?!'& 1@?=# = =A' *- J & *' 0;'
#B ' ; 88' K K ; ' =' Ji1 ! ?; ' !?;< ;8>' # ! ' & ', 6
D>'#B ' / ;8 7' ' #' #B ' K ! =A'#B ;?!' #B ' !!?89'
8?E =A' K;?# # # ?=' =# ; ' D>' #B ' 0 = < ;@ #'
!8 !B ; ' E ' ; @ ' =9J / ;8 < =#'#B ; A = #' ='
#B ! '# ;< ' 9'%B #'#B ' ' # ! @ # ?=' B?C8 '
'D ' DC#' K; C @ ' ?!'9#B ' AB# ' 0 D ;# ' = ' K; 9'
8 A ' =' ! ?C; ' ?!' ! ' ! ' 0 = < ;@ #'!8 B ; '
K ;# @C8 ;8>'#B ! '@?=# = ' ='#B ' @#' ?!' (;C=#'
?!' #B ' 0?; ' ?!' (! ?=' ?!' =. ' # '#B ' V' >' ?!'
!! D;C ;>' S' > ; ' !!?C= ' CK?='#B ' SS' @#'
V' / ; ' 1 ' J ' Z‖#B ' H1' oB ;D>'#B ' A #; # ' ?!'
& =DC;AB' ; '#?'# " '@ ; 'k‖ ='# < ' ?< =A' ''
K ;!?= ' EB #8D< ;' D ' 88?E ' 8 D ;#>' Q' !; L
?< ' CK?='#B ' ?; = ;>' !8 B' < ;@ #' > ' @B'
E "' ' #C >' #BC; >' Q1' #C;= >'#?' D; =A'
='#?' #B ' #?E= ' ?!' & =DC;AB' D !!' Q' 88' ?-‖'
C#@B ;' !8 B4' Q' #?' ! 88' #B ' < ' ='DC' * ;@ # 4'
='#B ' < ' < == ;' C; =A'#B ' < ' K @ ' Q' B '
!; 8>' =' 88' ; !K @#' ' #B '!8 B ; ' DC;A !! ' ?!' J '
! ‖ C;AB4' Q1' ?!' ?-`‖ C;AB ' ?> ''E #B ='J`' 1 =A9‖
?< ' ; ' =' C! '#?' ? ' = '#B #'#B ;' ! ' AB# '
= ' 0 D ;# 7'*B?C8 '!# = ' =' !C88' !?;@ ' Q' !8; =A#B'
#B?C#' =>' ;?A # ?=' ' !'#B ' ' # ! @ # ?='
'B ' = ;' D ='K !#' =?;' A; =# '9 2 B ;CK?=' + L
= 8' (<K!?=' ?<4< ! ?= ;'#?'#B ' / ;8 < =#' !@ 9'
#B ' C;AB' ?!' !!?;#;?! ' !?;' Q' =' = < ' = 'D B 8! '
?!' - ' ! ' 0 = < ;@ #' !!8 B ; ' !8 ' = '#??"'
=!#= < =# -

%*$* %* ' =' ! ?C; '?!'J?B=' ?! '
?!' C @"



=! ;# = ' =A;?!# EB ; = =# E #B' 88' #B '?#B ; g' ! @# ' = '?D @# ?= 'ED #!C C ;'#B #' < >'D 'K;?L K?= 'B ; (A = ''#B ;' # 'E #B' >@ '!?;! ' B ' K =! ' = 'B ; D>' !K =! '!?;' ;' = ' B ; D>'A; =# '#?'-`'! 'J < ' < 8#?='#B 'B ''K; g' 8 A 'Q' <C= # 'A; =# '#?' =C! @#?; ' ='#B '?;' =>'K; @ =A'/ ;8 < =#' = 'K ;# @C8 ;8>4' B! '!; ?<'Q' C'C= # '!;?<' 88' *<K? # ?= '# F L # ?= '@ ! 'E #@B =A'E ; =A'NC ;# ; =A'?;'8 >;' =A'?!' (?C8 ;'?;' =>'?#B ;' KCD8 @#' DC; ='<g' K?! ' ?;' #?' D ' <K?! ' K?='-`'!CD @#'?!'#B ' 8<' = '#B #' ='!?'! ;;' '@?=@ ;='#B '! 'J < ' < 8#?='Q' B \'! ;> =#' <K8?> ' =' =>'?!' B ' ! ' =C! @#?; ' = '?; = '#B ;' # ' 8 ;"' ?!' A !# ;' #?' F# = ' = ' @#' B ; =' ='<?!# <K8 '!?;<

%*$* %* ' =' ! ?C;' ?!' == ' +C#@B ' ?!' C@@8 C@B' ?!' #B ' & ;8 ?<' Q' 0?; B K' ?!' C@@8 C@B

U' %' &+* ') '#B 'd!>!# =-' >'?!' dJ# = -' <' @9' =>=# '#B; 9> ;' ' '(& *) ' 0 +' Q' 0 + 'E #B' #B '!K @8 88' >@ ' = ' @?=# =#' ?!' #B ;' #B; 9&!8 # '?!' / ;8 < =#' =?E' @?= = ' D>' #B ;' !# '!K @ 88' \ C#B?; # '!K?;' A; #' = 'E AB# '@?=! ; #?= ' <? =A' K\' = ' =AC8 ;' = ' < = =#' ! ; @ ' ?= ' = ' K ;!?;< '#?'#D ' ;?C= 'D>'#B ;' !# 'E 88' D 8? ' ??! =\' == ' +C#@B '?!' C@@8 C@B' D ' #B ;' K; ! =#' ; #! '@?=! ;< ' = ' KK;? ' = ' B ;# ;' E= ;' DC'); #' (88' ?!'#B ' -\ !L # ' =@ =#'1 =A ?< ' ?!' #B ' #' #9 2 B>'#9' B 88' #B '! =# =#B' >' ?!' ? <D 7' ' ' AB# '! ='> ;'A; =# '#?'#B '! ' == '+C#@B ' ?!' C@@8 C@B' = '!# ;' B ;' @ 8'#?'J < '& ;8 '?!' + 8" #B' B ;' 8 #' !?=' = '#?'#B ' ; '< 8 ' 8 C!C88>'#?' D ' K ?@; #?!' B 'D? >'EB 8" '! 8A 9' =A'#?' #B '?#B ;' ; '?!'# 8A ' = 'K;? ! ?=' < =L # ?= ' = '@?=# = ' ='#B '! ' B ;# ;' = '#B ;' ! A= > 'E #B' = 'C= ;'#B ' FK; ! 'K;? ! ?= ' @?= # ?= ' @8 ; # ?= ' ; !#; @# ?=A'8 < # # ?= ' = ' NC 8 ! @ # ?= '#B ; =' FK; !#' 'B ;'B?8 =' '!?;' 7 FK; !#' D; # # '@ C! '!' 88' = 'B 88' #B '# #8 ' B?=?C;' Q' A= #>'?!'#B '+C#@B '?!' C@@8 C@B' = ' ?C=# '?!' + 8" #B4' 0 >'(@?#?!' 2 B #@B !# ;' &8" 88' Q@4' = '& ;8 ?<' B '0?; !8 K'?!' C@L @8 C@B' #B' 88' K; @ =@ 'K; ?; # 'K; < =9' =@ ' = '8 D ;# 'N%?< ;' D 8?=A =A' J!#? = ' ?!' 88' = '!C= ; 'J 70 = '0?; !# K' ;?= ' # >= ' = '?`T'K ;# @C8 ;8 'C= ;'E; ## =' .' 88' = ' 88'#B '0 = ' = ' ;?B '?!' ; =FB?8< ' @?<K; B = =A' DC' 0 = ' = '?#B ;' !K @ ! ' =\' #B '!' B ;# ;' = '?!' 88' = '!C= ; '#B '8 = ' = ' K?! ! ?= '?!' !! 8!> '#B '8 = ' = 'K?! ! ?= '?!' 8#B?;= '#B '0 = ' = 'K?! ! ?= '?!' +?8?; =' 2 ; =A8B?K' C8 =A!B?K' = '&8 =A B?K' E #B4' #B ;'K ;# = =#' = '!C= ; '#B '0 = '?!'); =L E?? ' = '0>= 'E #B'#B ;'K ;# = =#' = ' 88' = 'B '

#B '! F' BC8D = '8 = ' ='); =!8 E' @ 88 '/?!# ; g' 8 = 'E #B' .'K ;# = =#' 88' 8> = 'E7='#B '!8 ; !!g' ?< '?!' ?FDC;AB4' (8" ;"4' = '/ D8 '; F ' = ' 88' = 'B 88'#B '#?C;4' = '!?;# 8@ 4'@ 88 ' !g' = = '#?E ;' 8 ' ?=" #?E ;4' E #B'K 'K ;# = =#' K ='< =# ?= ' = ' 88' = 'B 88'#B '8 = ' = 'K? g' ! ?= '?!'1 =AE?? ! 8 'P C8 @8 C@B' ?;#! B?C! 4' %B ;8 !# = 4' ; B CAB4' ;?E B?K 4' (#?D # ? #4' C;AB4' (C =; AA' ? #DC;=4' 2 !#@? #; A4' ?Eg' = B 88'/; !#B C@B' = '/ == =AC!B?K' = ' ''#B ;' K ;# = =#'8> = 'E\='#B '0?; 8B K'?!' 8;?! 8/ 4' 88 ; !! ?< '?!' ?FDC;AB' !?;! ' = ' @"8>" '?!' 88' = 'B 88'#B '8 = ' !!?;; !#; 'K?! ! N= ' = ' K8 @ 'C= ;'E; ## =' >'#B '8 = 'K8 @ ' = 'K?!g' ! ?= '?!' #!8 @"' E #B'#B '#?C ;' = '!?;# 8@ 'D K\?!'#B '8 = 'K8 @ ' = 'K?! ! ?= '?!' !# ;' = ' E !# ;' ?=#D =\A ;' == F ' = '=@?;K?; #' =' = ' B 88' = '!; '# == = ; '@ 88 9#B '# == = ;! '?!' #!8 @"' E #B'#B #'K ;#' = 'K = @8 '#B ;?!' @ 88 ' (B?## =A8 >'E #B4'#B 'K ;# = =#'4?!'#B '! < ' = ' K = @8 '#B ;?!' 8> = 'E #B ='#B '0?; #B K' ?!' &#; @"'!?;; !#' = '!B ;; !! ?< '?!' (8" ;"\' '8!?' 88' = 'B 88'#B '8 = ' = 'K?! ! ?='?!'!! !#B CAB4g' C=#8 4' ;# ;B CAB4' 8 E ;"' 8 ' ;# ;< C@B4' 2 B # 8 D; ' 8 ' # B<C;8 '=?E'@ 88 ' E ;"' E7K '< 8= \?!' E ;"'8> = 'E ='#B '*B ;; !! ?< '?!' (8" ;"'E #B'#B 4'#?C ;' !?;# 8@ \< =?; 'K8 @ ' E?? ' < 8= ' 8?@B '! 8B =A' 8!' E 88' 8<?= ' ' #B ;'! 8B =A'# == =#'# == = ;' ! ; @ '?!'!; '

== =#' == F ' ?== F ' = 'B 88'; < = =#'K =L @8 ' = 'K ;# = =#'?!' 88'#B '! '8 = ' # = < =#' 8?; !D K' D ;;?= 'K8 @ 'K?! ! ?= ' = '?#B ; ' K ;# @C8 ;8 ' E; ## =' = '@ !# = '?#B ; '@?=# = ' ='#B ' =! !#< =#' << #8>' C= ;' E; ## =' 88' C= # ' @; #' = ' =@?;K?; #' =' = '8 88' = '!; ' ;;?= '@ 88 '#B ' ;;?= '?!' ; =FB?8<' D>' = ' B ;# ;'A; =# 'D>'1 =A'J < 'K '(F#B'?!'D8 ! 97' '< <?;>'C= ;'B '); #' (88' #?' C<N77 2 8# ;' 0?; '(@?##?!' C@@8 C@B'); #'); = ! #B ;'#?'#B ' ! '+C#@B '!'#B ; =' ! A= '(P 2 8# ;' (@?# !' ; =FB?8<9"= AB#\' = '#?'B ' ; ' = '! '#8 ;g' ='!K @ ! ' # '=#' !! 8"'8 = '#B '! F# =#B' >' ?!' CAC #' * ' P =>=# '=>= '> ;' KK?>B# =A' = '! ! = '#?'D '# " =' #'#B ' !#8 '?!' ; =FB?8<' '#B 'K; = K 88' < ! C A '?!'#B '! ' ;;?= ' =' 88' #>< '#B ; !# ;'#?'D '!C!! @ =#' !?;' #B 'B 88' = '?!' 88' = 'B 88'. '!; '# = < =#' @ 88 '#B '# = < =#' ?!' 8 @"A; = ' @?<K; B = =A' . 'B 88' #?C= ' 8 = ' ! !B =A' 8!'E '! 8<?= ' ?K7' E!K 'K L #;?= A '?!'#B '@BC;@B' = 'K ;?@B = '?!' 2 ?8#?C=' 0 C= ' ?K7' !K #' ='#B '* ' B ;# ;4' @?=! ;< 4' 8> = ' E\='K '! ' *B ; !! ?< '?!' ?FDC;AB' Q' (8" ;"' = \';>\'?!'/ #;?= A '?!'K '" ;" 'Q'@B K8 = ; '?!' & ;!#?C='Q' # 88#?C= 'E7K 'K ;# = =#'8> = ' E\='#B g'! ' B ;; !! ?<'?!' ?FDC;AB' = ' ''C= # ' ='= 'B 88' = '!; ' # = < =#' @ 88 'K '# = < =#' ?!' 8 @"A; = 'D ' B ;# ;'A; =# 'D 'K '! '1 =A' J < 'K '(F#B'#?'K '! ' 0?; \ C@@8 C@B' = ' B ' !?;! ' # '#& P'#B '#C =# '#C?' >'?!' ;@B' J \ @P' = \!?C;' > ;' D ; =A' = '! ! = '#?' D

D 8?=A =A‵#B ‵;#?‵Ε #B‵#B ‵i ‵&‵;8 ?<‵ =‵0?; ‵9
i8 K‵?i‵&C@‵8 C@B‵ =‵?i‵ 88‵ =‵B 88#B‵* ‵8 = ‵9
J& ;8 ?<‵0?; i8 K‵8 A 8 # ‵ ;‵?= ‵ C;AB‵
%?== ‵ <>8= ‵ <>8= 8 = ‵ # >= ‵ i i8 =A‵ = ‵
?#B ; ‵ iK ‵#?ii @ ‵; ABB#‵?i‵K #;?= A‵?i‵ BC;@B ‵
‵ = ‵ B K8 =; ‵QB#B ; ‵ FK; i# =‵i ?C; ‵?i‵#B ‵
i ‵ == ‵ +C#@B ‵?i‵ C@@8 C@B‵ = ‵ i# ;‵ B ;‵ 9
@ i‵?i‵#B‵i‵J < ‵& ;8‵?i‖+ 8‴ #B‵ B ;‵ 8 i#
i?=‵ = ‵ ; ‵< 8‵?i‵B ‵D? >‵EB 8‴‵i 8A =A‵ ‵
* ‵ = ‵8>‴ Ε > ‵ @?=# = ‵ = ‵@8 C ‵=?# ?=8>‵
‵; # 8 A =A‵ KK;? =A‵ = ‵@?=i ;‵< =A‵#B ‵ i ?8C9
?= ‵ ; @# ?= ‵ C= ?= ‵ == F # ?= ‵ = ‵@B =A‵?i‵
B?8 =A‵ =‵#B T‵i ‵ +C#@B ‵?i‵ C@@8 C@B‵ = ‵B ;‵
i ‵i?=‵#B ;‵ B ;‵# ;‵Q*=i i#=< =#‵?i‵#B‵i ‵&i8# # ‵
?i‵ C@@8 C@B i?;‵< ;8>‵A; =# ‵ =‵#B‵B 88 B ‵
‴ ;# @8 ‵ = ‵@8 Ci ‵ i‴ ?‴ =‵i?‵i ;‵2;‵< ABB# D ‵ FL
= ‵ ₀#?‵ DC# 8i?‵?i‵ = Ε‵ i ?8 ‵i ; ‵ ‵?i‵
B ;# ;‵ # ‵#B‵ i ‵ i =# =#B‵ >‵?i‵ ?L
<D ;‵ @P‵& AB# ‵i =‵> ;‵‵A; =# ‵#?‵#B‵
i ‵+C#@B ‵ = ‵ i# ;‵B ;‵ @ i‵#?‵#B‵i ‵J < ‵
& ;8‵?i‵B ‵D? >‵EB 8‴‵i 8A =A‵ #?‵ #B ‵?#B ;‵
< 8‵?i‵B ‵D? >‵EB 8‴‵i 8A =A‵ #?‵ #B ‵?#B ;‵
; ‵?i‵# 8A ‵ = ‵K; i ?=‵ < =# ?= ‵ =‵#B ;‵
i?;i ‵ = ‵?i‵B ‵#B ‵K; @ K‵# ?%‵i i = ‵₀ =‵@?=# = ‵
D = ‵ =i#;‵C< =‵# ?i‵i i = 7i?88?Ε =A‵#D ;‵CK?=‵#?‵D ‵
8i ‵ 8 ‵ ii @#C 88 = ‵iCii @ =‵# = ‵?i‵ 8i A; ‵#
i?;@‵i#; =#B‵ = ‵ ii @#‵?‵ 88 =# =# ‵ = ‵KC;K?i

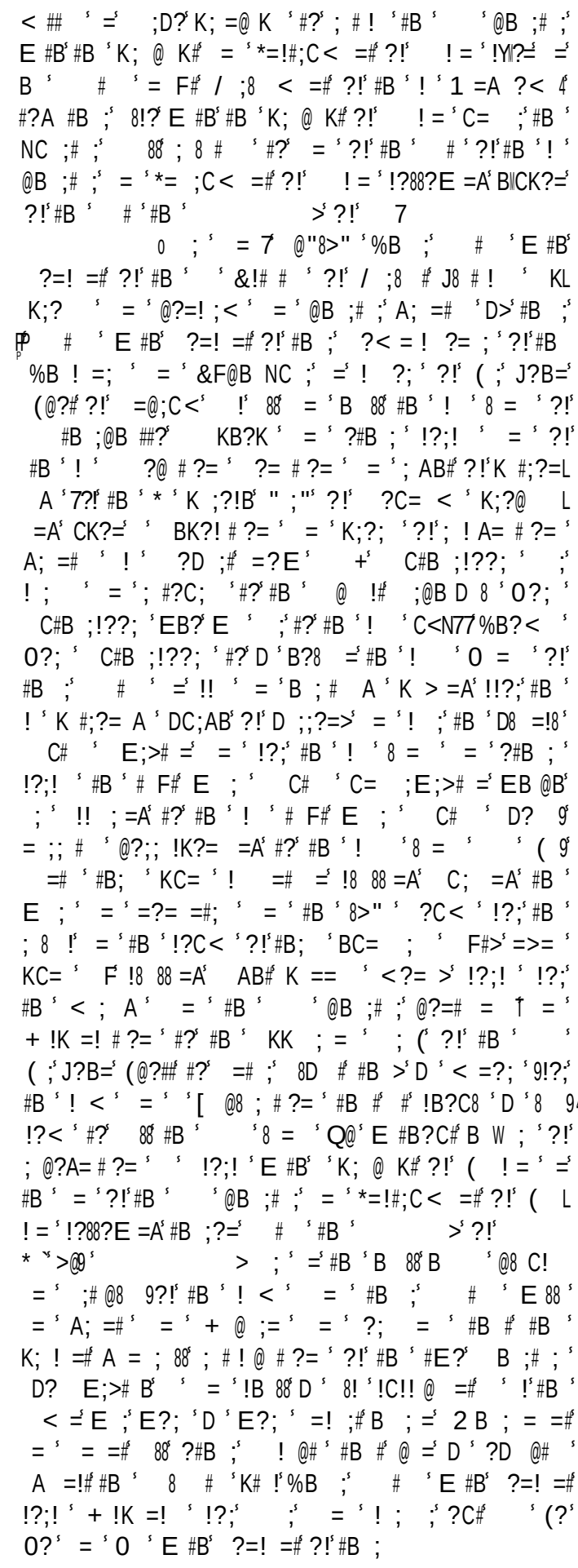
‵ ‵ ‵ .UU‖

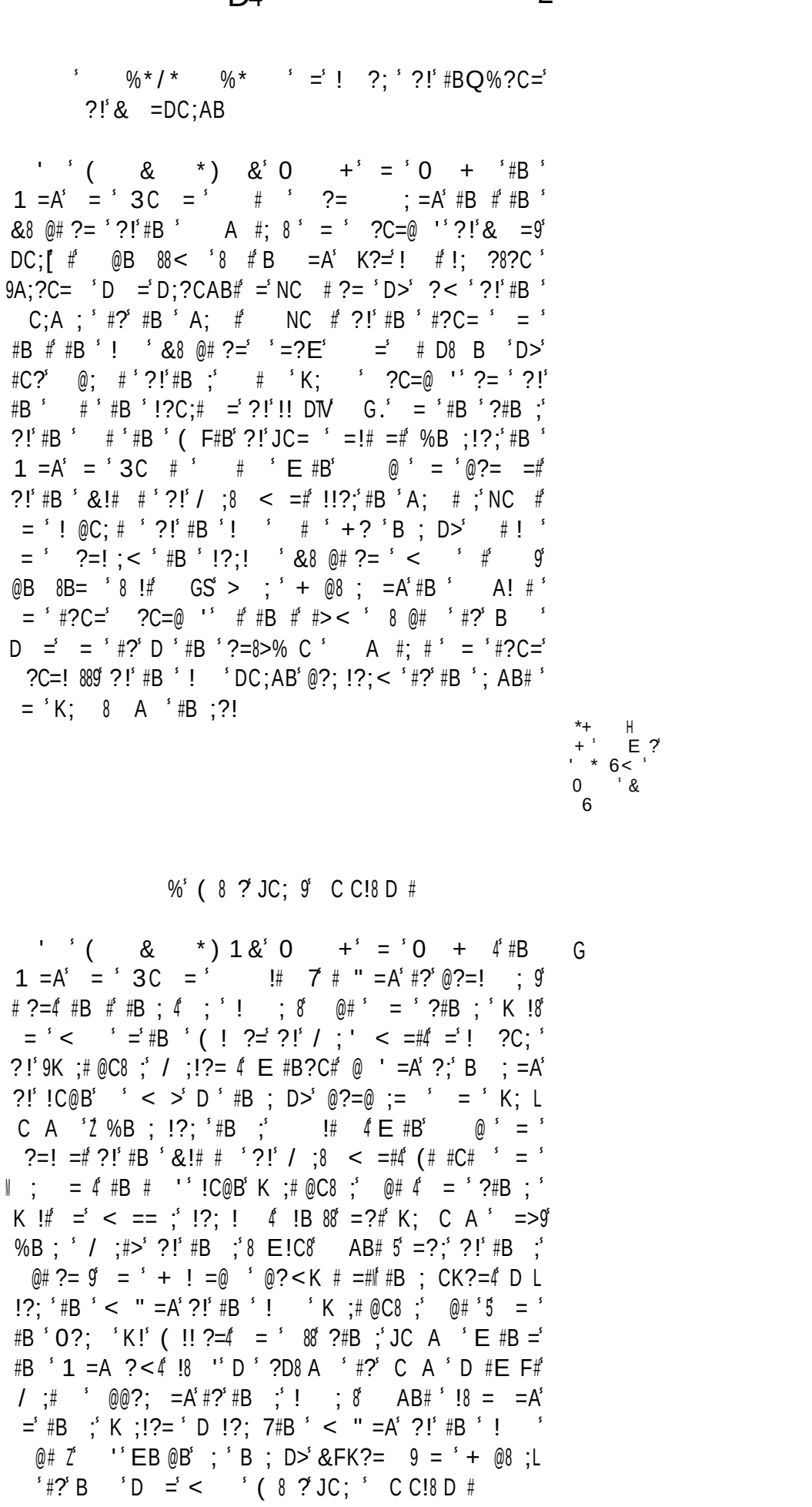
)=*‵ ‵ ‵

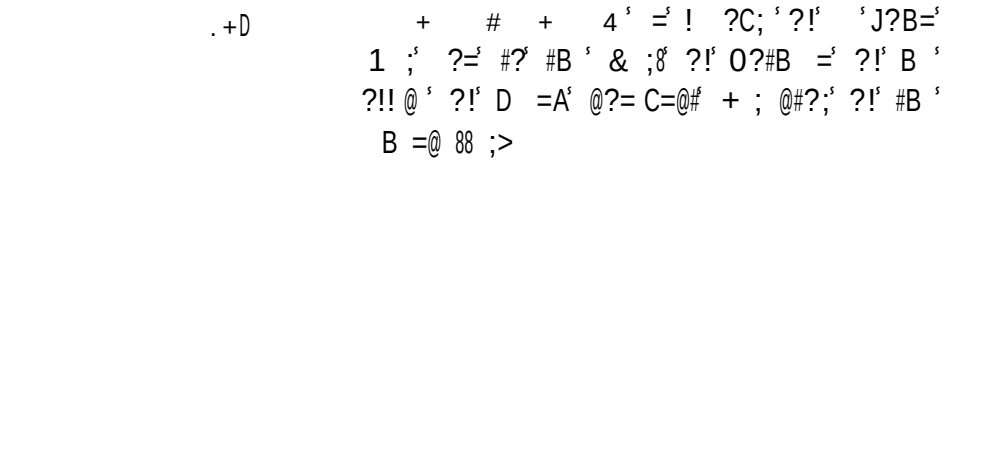
‵ i‵#B‵i ‵ B ;‵# ;‵ = ‵i i = ‵i?88?Ε =A‵?=‵#B‵
K; @ K‵# ₀ =‵ @?=# = ‵ Ε ;‵ ‵ ;DD‵ =‵ ;DC<‵
B ;‵=‵ #8 =#B‵ =@:‵C<‵ ?i‵#B‵0 = ‵ ?i‵ #B ;‵
%*$* %* ‵ =‵ i ?;‵ ?i‵ (;‵ J?B=‵
(@?#‵ ?i‵ =@:‵C<‵ ?i‵#B‵0 = ‵ ?i‵ #B ;‵
B ##?‵ Q@

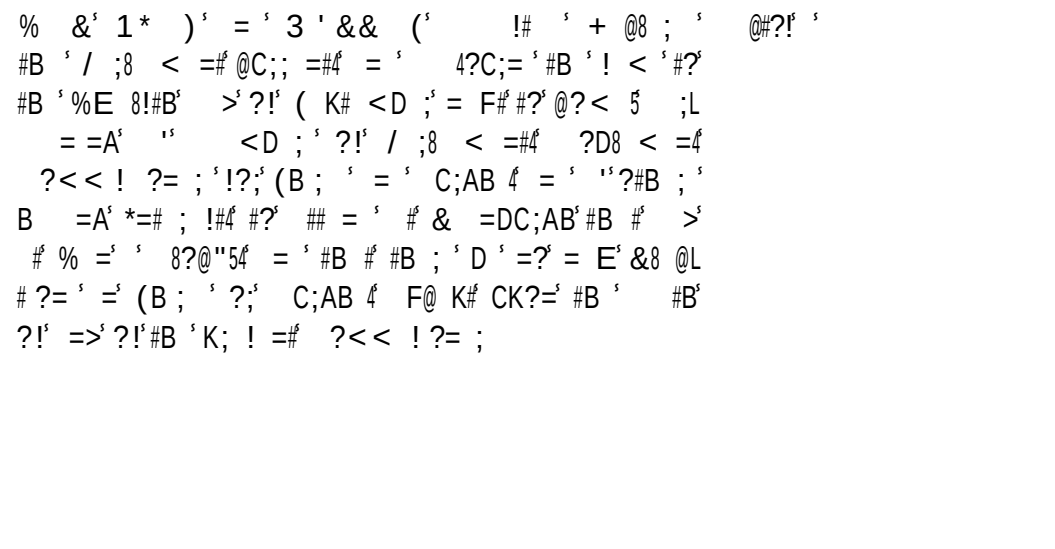
‵ #B‵/ ;8 < =#‵ B?8 =‵ # & P‵#B‵ d|>i# =3‵
>‵ ?i‵ JC= ‵ *]‵ 9 =>=# ‵ #B;‵ > ;‵ ‵ ‵
(& *) &‵0 +‵ =‵0 +*&‵#B‵1 =A‵
= ‵ 3C = ‵ # ‵Ε #B‵#B‵iK @ 88 >@‵ =‵
@?=i =# ?i‵#B‵‖&i# # ‵?i‵#B‵K; i =#‵/ ;8 L
< =# # i ‵ KK;? ‵ =‵K ℳ #C 88 ‵@?=i ;‵< ‵
=‵ @B ;‵# ;‵ A; =# ‵D>‵B‵8 # ‵ B8 i# ‵1 =A‵
‵ < 8 ‵ΕB #i?< ;‵3T‵ 8i?‵i 8A =A‵#?‵B ‵
= ; i# =‵8 CiC88 ; ‵ =‵ i A= > ‵ΕB #8D<9‵
;‵?i‵#B‵ # ‵ # 2 B># B 88‵#B‵ AB# >‵?i‵
JC88>‵* ‵ P i FF# ‵i F> ;‵‵ΕB ;D>‵#D‵i ‵1 =A‵
B ;8 ‵E?@?=i =#?i‵#B‵ ₀‵B AB‵%B i#%B i#‵ K7
?‵;‵ ?P?i‵#B‵#B i]‵Q F B N‴i?;‵#B‵#>< ‵) ‵
A; =# ‵ iK?= ‵ =‵K ;K #C 88 ‵@?=i ;< ‵#?‵#B‵
i ‵C<N ↑%B?< ‵0?; ‵ CB ;i??; ‵ =‵B ‵i;i ‵
88 =‵B 88‵#B‵8 = ‵D ;;?=>‵ =‵?B ;‵C= ;9‵
E;># =‵ ‵ 88‵ =‵dB 88-‵#B‵8 = ‵ =‵D ;;?=>‵
?i‵ (@; i DC;AB‵ 8 ‵ C=#B 88‵Ε #B‵# == =#‵# 9‵
= = ; ‵ =‵9i ; @‵?i‵i; ‵ # == =#‵ =‵B 88‵
?#B ;‵K ;‵# = =# ‵?i‵#B‵i < =‵ 8> = ‵Ε #B =‵#B‵
i8 ; i ?< ‵?i‵ ?FDC;AB‵ X F@ K‵# ?=8>‵ #B ‵ # =‵
;‴8 = ‵?i‵?8 ‵ F# =‵# Ε #B‵#B‵K ;‵# = =# ‵8> =
<

‵ ‵ ‵









8<

* = ;"

%B ' 0 ; ' ?!' 0 < =A#?C='

(!' 2 H[+ =B?8<' ?!' 2 !#!# 88'

%B ' 0<; ' ?!' 0

+;C<!;

(!'J < ' J? <!#?C=' ?!' 2 !# ; E'

8 F = ;' J?B=!#?C=' ?!' &88B !B 88 '

2 88 <' ; AB#?=' ?!' ; C!C; !#?C=

2 A#?C=

(!' = ; E' A= E' ?!' 0?@B= E'

2 88 <' !8 ?E 8' ?!') ;#B8 = '

;

!'$; =@ ' ?=#A?<;>' ?!') !! ='

%B ' 0 ; ' ?!' ?E 88 =' 0

%B ' 0 ; ' ?!' 1 8D ;= '

+C=D ;#?=

4' 8 C ' < 8#?=' ?!' < '

C#

+ ' ?>8' ?!' 1 8DC;='

!' 2 88 <' (#C ;#' ?!' <D; <?;

=!; E

(!'J?B=' FE 8' ?!' /?88?@"'

2 88 <' C= =AB <'?!' ; A = '

J?B=' 8 E 88' '#B #' *8"

(# ;8 =A

%B ' 0 ; ' ?!' KC!#?=' >?!

8 F!' ?=;?' ?!' ;'@;?!#

0 =8 #BA?E

%B?< ' +;C<<?= ' ?!' @@ ;#?C=

/ #; "' C;; >' ?!' 0 =A #?C=

/ ;#B

0 [(!' ?8 =' <KD 88' ?!' !D ;C@B 8

<' +;C<<?= ' ?!' AA = B

%B ' 0 ; ' ?!' 8B?C!

?D ;#' >' ?!' (#;C>

1 =@ ; =

(!'%B?< ' C;= #' ?!' 0 >

8 F = ;' ;DC;#B= #' ?!' 1=?F

D ; =

(;' J?B=' $?;D(' ?!' ; A !

9 !'J < ' &8KB =A!#?C=' ?!' 0?A

*= ;= !

%B ' 0 ; ' ?!') ; =#

%B ' 0 ; ' ?!' C88? =9

;=

0 %B ' 0 ; ' ?!' 8 ;' >?C=A ;

) ?;A ' ;? >' ?!' !8 !" $

;?< ;#>

%B ' 0 ; ' ?!' ;?< ;#>

;A 8 0

(!' ?8 =' <KD 88' ?!' ; " =A8 ! ''

(!'J?B=' <KD 88' ?!' ;; @"

$!

2 88 <' &=!#;C#B ;' ?!' #B #' *8"

(!'J?B=' + <K!# ;' ?!' / #8 ;

!'J < ' 8 88' ?!' 8B 88

) ?;A ' ?=@; !! ' ?!'

$?;! ;

%B ' 0 ; ' ?!' +C=

J < ' (@?#' ?!' 0?A ' !'

0

' ' ' ' ' '*=;

%B ' 0 ; ' ?!' 1 B D ;'

!' J < ' 8=' ?!' 8E>8?9'

<! ' 04'

(!'J < ' D ;@;?<D ' ?!' ;B =D? A5'

8 F!' +C!!' ?!' ; @?'

(#C ;# ' ?!' 1 ;"C D; AB#

/ #; @"' +C=D ;' ?!' @B; <?; '

(C#B ;8 =

<') ?; ?=' ?!' + 8KB?88>

#B= !

/ #; @"' C;; >' ?!' / ==>8 =

&8A =

0%B ' 0 ; ' ?!' ;? >

;"= >

8 @"< == =

?!

(!'J?B=' ?=;?' ?!' $?C8 '

(!' 8 F!' @1 =W ' ?!') ?C8!

1 =;?!

((& (' $ ' ' 2&(^

& =DC;AB (!'J?B=' 88'

' 8 F = ;' %B?< ?=

/ ;#B ?D ;#' (< #B

+C= J < ' $8 #@B ;

D ; = ?D ;#' ;C " B ="

(# ;8 =A J?B=' + @"

0 =8 #BA?E 2 88 <' AA =

(=#' = ; E J < ' (< #B

)8 A?E J?B=' = ;!?=

;' 0 J?B=' C;

=A#DC= !'J < ' 0 C ;

+> ;# 8 F = ;' (E =#?C=

1 ;" 8 J?B=' ?8E

?=#;?! J < ' ??

?CK ; (!' ;@B D 8 ' C;

&=!#;C#B ;' & !# ;

+;C<!; ?D ;#' J?B= #?C=

*= ;= ! J?B=' C#BD ;#

;C=#' * 8 = 8 F = ;')

*=C ;" #B =A 8 F = ;' (K ## 88

1 =AB?;= / #; "' 2 88 @

7 ; @B = $; =@ ' ?88 ?=

*;E = !' 8 F = ;' C= =AB <

J DC;AB <' =!8

1 ;"C D; AB# J?B=' &E ;#

2 A#?C= 0

+C<! ;<8 =A (!' B ;8 ' @" #

/ ## =E <) ?;A ' (< #B

(8" ;" !'J?B=' C;; >

+ <D ;# = B !'J < ' (<?88 #

=!; E' 0' 5 !' 2 88 <' ?@B; =' T

+C<D ; ?D ;#' $ 88

0 = ;" %B?< ' < 8#?=

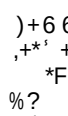
D ;J ;?#B?@" / #; @"' (# =

&8A =

/ D8 J?B=' C;

>?677 Q

/ & (



K; @K <C ' KC ' C8 <'=?!#; <T ' 1 = =A#?C=' @ <?' K# <?' ' = ' K;8 ' ==?' +?< = ' 88 ! <?' (F@ =# 8 <?' =?=?A ! <? C =#?' A= ' =?!#;' ==?' (K# <?' / ;' (A= #C; <'< =C' (' + ' 4' A ' CK; ; K# <4' 2 ; ## ='=?'=#B ' D @"'#BC ' 2 ; ## ='#?'#B 'A; #' = ' / ; >' (8 ' = ' A #; #' #B ' 8 =#B' >' ?!' >' G ' (@' CD!@; D #C;' B Ł1 ;;' (8 ' #' & =DC;AB' 2 #B' #B ' A; #' (8' #B ' (=#B' >' ?!' >' * 4' D>' (@' C8 9' !@; D #C;' J?'Ł + @" ?='(8 ' #' & =DC;AB' E #B' #B ' / ; >' (8'D>' 2 ;; = '!;?<'#B ' / ; >' ?C=L @8' #B ' 8 =#B' >' ?!' >' G ' (@' !CDŁJ?Ł' B;>!8

d\& ;8 '?! =K = 8 / ; =#J

' % & ' ' # ' ?<< !# ?= ;' A= !> ' #?' #B ' / ;8 < =#' #B #' B ' E ' @?<< = 'D>'#B ' 1 =A' #?' = < ' #B ' & ;8 '?!' == = 8 9/ ; =#'#?'#B ' (! ?='?!' / ;8 < =#4' = '#B ' & ;8 '?!' == = 8 ' D =A' ?' = =8 ' (E?; ' #B ' ? #B' ?!' 88 A =@ ' = ' ? #B'?!' / ;8 < =#' = ' CD!@; D '#B ' 88 AL =@ ' = ' ! C; =@ ' = '#??"' B 'K8 @

% &' ?88 '@ ' ' T

\/ ;?# # 9' / ; @ =@>-\' % &' & ;8 ' ?!' $?;! ;' K;?# # ' ='= < ' ?!' #B ' ;NC '?!' +?CA8 ' #B #'#B '@ 88 =A' ?!' =>' ?#B ; ' ='#B ' ?' '?!' / ;8 < =#' D !?; 'B <'< >'=?#' K; L C A 'B <'?!'#B 'A ; #' ?# '?!' / ;8 < =#

% &' & ;8 ' ?!' (C#B ;8 = ' K;?# # ' A = #' @ 88L =A' 88' #B ' & ;8 '9; =" ' D !?; 'B <' ='#B ' ?88 ' ?!' / ;8 < =#

% &' & ;8 7' ?!' ; C!C; ' ='= < '?!'#B '& ;8 '?!' ?FDC;AB' K;?# # ' A = #' #B ' @ 88 =A'#B ' & ;8 ' ?!' O?#B ='='#B ' ?88 '?!' / ;8 < =#' D !?; 'B <

(3H J < ' A 8 >' ='= < '?!'#B ' & ;8 '3?!' $ = 9 8 #?;' K;?# # ' A = #' @ 88 =A'#B ' & ;8 ' ?!' ;8 ' ='#B ' ?88 '?!' / ;8 < =#' D !?; 'B <

% &' & ;8 '?!' O ='K;?# # ' A = #' @ 88 =A'#B ' & ;8 '?!' 88 = ;' D !?; 'B <

#,' 6/ *' G- .0 (H ?8 =' <KD 88'?!' D ;C@B 84' 2 88 <' ?8NC9' B?C=' ?!' ; A#?C=4' (Ł J < ' D ;@;?<D ' ?!' ;" =D?A4' (Ł J?B=' 884' Q' Ł J < ' O C ;' F@C! ' =' ; K @#'?!'#B ;'= @ ! ;>' D! =@

d ?<<8!9 * & * 1 *0' % &' ?CD8 ' &8 @# ?='?!' ' ?<< ! ?= ;'!?;'#B ' C;AB'?!'& # ;' =!#;C#B ;' ; < ## ' #?' #B ' @?=9' ; # ?='?!' #B ' ?<< ## 4' #?' D ' KK?>=# '!?;' @?=#;? ;# '&8 @# ?= ' 0 7 #

d #B?!' # " =- 7 ' % &' +C" ' ?!' 3C = D ;;>4' O?; ' (8#?C=4' Q' O?; ' ;A =>' ?D ;#' >'?!' (#;C ' ?<< ! ?= ;' !?;'#B ' (B ; ' ?!' / ;#B4' 8 F = ;' %B?< ?='?=

?!'#B ' ?<< ! ?= ; '!?;'#B ' #>'?!'& =DC;AB4' 0 ?D ;#' ;??" B ="' !?;'#B ' #>'?!' D ; =4' 8 F = ;' (E =#?='!?;'#B '%?C='?!' +> ;#4' ?L D ;#' J?B=!#?=' !?;'#B '%?C='?!' +;C<!; ' = ' 2 88 <' =A ' !?;'#B '%?C='?!' O?@B< D =' #??"'#B '? #B'?!' 88 A =@' = ' A= '#B ' < ' E #B'#B ' ! C; =@ 4' = ' E?; '#B '? #B'?!' / ;8 L < =#

'O&%%& '!;?<'#B '1 =A'#?'B ' # 'B AB' ?<< ! ?= ;' ='! ?; '?!'#B 'O?; '% # ;4' #?' #' = ' ?# ' K' K8 @ '?!'#B 'O?; 'B AB'%B 8 C; ;' ='#B ' (! ?='?!' / ;8 < =#4' D =A'; 4' B '#??"'#B ' ? #B'?!' ' A =@ ' = ' A= '#B ' < 'E #B'#B ' ! C; =@ 4' = ' E?; '#B '? #B'?!' / ;8 < =#4' #B ;9' !# ;'#??"' B 'K8 @ 4' ?!'#B 'EB @B'O ## ;'#B '# =?;' !N'?E

(@' CK; @; D #C;' 2 *0 0* ' *) %'#;C #>' = '; AB#' =# ; 8>'D 8? ' ?C B' = ' ?C=@ '?;' 2 'A; #'>?E' E 88' P2B ; '#B ' ?!! @'?!' O?; 'B AB'%; ! C; 7' 7=?E' =' ?<< #9' (?=4 = ' #' D =A' K;? 'D>'#B 'O E '?!'#B #' ?C;' 1 =A ?<'#B #'#B '=C<D ;'?!'?C;' !! @ ; '?!' (# # 'EB?9' ; '#?' B ' ?# ' = 'K8 @ ' =' / ;8 L < =#' B?C8 '=?#' F@ '#B '=C<D ;'?!' AB#4' =' #B?CAB' #' =>'# < '#B ; ' B?C8 'D ' <?; 'K ; ?= ' <K8?> ' ='#B ' F @C# ?='?!'#B ' '?!! @ ' = '

%B '1 =A' O ## ;'= <L =A'#B 'O?; ' # ;#?' #' Q' ?# '4' O?; 'B AB' %; ! C; ;' * C; =A'#B ' (! K='?!' / ;B

#' D =A'; !?= D8 '#B #'#B ; ' B?C8 'D '?= '= < ' #?' KK ;' = ' @#' ='#B ' =!C =A' (! ?='?!' / ;8 L < =#' '?C;'%; ! C; ;' !?; '%B ; !?; '2 ' ?' =?< = #' = ' KK?>=#'?C;' ; AB#' #;C!#>' = ' E 88' D 8? ' ?C=@ '?;' O O?; '% # ;'>?C; ?= '#?' B '#B 'K8 @ ' = ' ?# '?!'#B 'O?; 'B AB' %; ! C; ;' ='#B ' =!C =A' (! ?='?!?C;' / ;8 < =#' = ' =' '' ?#B ;' JC @ #?; ' ' C@B' ='?!! @ ;'?!' (# # ' C; =A'#B '# < '?!'#B '(?='(?'E 'D 9' >?E'B ;# 8>'! ; E 88') =' #'?C;' ?C;'#' #'* =9' =A#?C='#B '(=# =#B' >'?!' K; 8 ' G ' = ' ?!'?C;' A='#B '(=#B'> ;' >' ' ' ?<L < = ' (@' CD C;' 'J?B= #?C=

% &' 1 =A ' O ## ;' #?' #B ' / ;8 < =#' K; =# ' D>'<>'O?; ' ?<< ! ?= ; '); @ 'E ';' 4' EB ;?!' #B '# =?;'!?88?E

$

(@' CK; @; D #C;' 2 *0 0* ' >' O?; 'Q) =#8 < =

% &' @?=# =C # ?=' ?!' #B ' E ;;' # ''B = ; ' C ' !;?<' KC;!C =A' ?C;' ; !?8C# ?='?!' D =A' <?=A #' >?C' ='K ; ?=' = ' ?' ?D8 A ' C '#?' @ 88' >?C' #?L A #B ;' ?=@ ' <?; ' ='?C;' D! =@ '%B ; !?; '2 ' B ' KK?>=# '?C; '; AB#'#=;!#>' = '; AB#' =# ; 8>' D 8? ' ?C ='= ' ?C=@ '?;' J?B=' ;NC '?!' %E ''#?' D '?C;' ?<< ! ?= ;4' = '#?' ; K; L =#?C;' K ; ?=' = ' C#B?; #>[<?=A #'>?C ' %B ' K;??!'B 'B #B' A =4?!' B '@ K @#>' = ' FK ; =@ ' ='DC! = ! 4' 'E 88' Ł?!' B '! 8#>' Q W 8' D>' B

%B '1 =Ai' O ## ;'#?' # / ;8 < =#

' *= ;) ; '

< => = ' 8?=A (; @ ' #? #B ' ;?C= Q # ?=
= ' K ;# @C8 ;8>' #? C ' =@ ' 2 ' < ' B <' ?C;'
B =@ 88?;4 E 88 ; = ;' B <' ;>' @@ K# D8 ' #?' >?C '
2 ' ; '>?C' #?' A 'B K' =# ; '#;C # = '@; #4
*$?;' E ' B '!C88>' = #;C@# 'B <' E #B' ?C;' < = '
 'B 'K?E ; '#?' K ! ' 88 C@B' 0 E '!?;'#B 'A?? '
?!' #B # KC;' =@ =# 1 =A ?<4 ' B ' D =' K;?9
K?! ' #?' C ' # #B ' # < ' ' '#?' 8"' =?#B =A' ?!'
>?C' =' ?C;' = < 4 DC# #B # EB @B' #B ' =# ; !# ?!'
#B ?C=#; >' < " ' = @ ! ;>' #?' D ' ?= ' = '
#B ; !?; ' 2 ' = ' =?# < =# ?=' #?' >?C' #B # #B '
(CD! ' !?;' K > =A' #B ' !?;@ ' ; ' =?E' FK ; '
= '#B # >?C;' K @ ' = ' ! #>'; NC ; '#B '; = 96
=A' ?!' #B <' C; =A4 #B ' E K;' ?E' E 88 D ' 8!?
! =! B8 ' #B # #B ; ' ' ' = @ ! #>' #?' B ' #B ' @? !#
= '#; ' @C; '!;?<' / ; # ; ' 2 ' 'A8 '
=>' KK ; =@ ' ?!' ' K?! # ?=' #?' <? ; # ?='
Q 9C= ?=' D?C# BC;@B' < ## ; ' 2 ' B?K ' >?E'
E 88 =@?C; A ' # = ' K;?<?# ' #4 D>' ; <? =A' #B '
(CD @# '?!' !! ; =@ ' '<C@B' '>?C' @ =

2 &' ; ' =?# C=< = !C88' ?!'>?C;' 0 ## ;' #?' C ' =
#B '4!"6-' ?!' #B 8 # (! ?=' %B ' "=?E=' =# ;;CKL
# ?= ' E ' B ' B ' =' DC! = ! ' #B ' E =# ;' B '
D =' ' A; # B = ; =@ ' #?' C 4 DC# E ' ; ' ; 9'
!?8 ' #?' ?' EB # ? ;' < >' D ' !?;'#B ' (@C; #>'
?!' #B ') ? ;=< =#4 = ' #B ' # ! @# ?=' ?!' ?C;'
A?? ' (CD @# ' 2 ' ; @?<< = '#?' >?E'@ 8<= ! '
= 'C= = < #>' ='>?C;' K;?@ =A 4 = ' ?CD# =?#
DC# #B #' >?ET' @# C# D8>' #?' #B '@?=! =@ ' E '
B 'KC# =' >?E' =' @ 88 =A'>?E' A ' =' ?C;' D9'
'! =@ 4 = '#B # '>?E' B ' ?= 'CK?=' ?#B ;' ?@@ 9
8 ?= 4 ' >?E' E 88' CK?=' #B ' A ' C ' C@B' A= 8'
!# <?= ' ?!'>?C;' C#>' = ' !! @# ?=4 ' E 88' @?=L
 =@ ' 88' < =' ?!' #B 'K ;! @# C= ?=' = ' C= ;!# = 7'
=A' #B #' ' D #C F# C ' = '#B # ?C;' =# =# 1 =AL
?<') =' # ?C;' ?C;# # 1 = =A#?C=' #B '
(=# =#B' >' ?!' K; 8 ' G 4 = '?!'?C;' A='
#B ' (=#B' > ;' >' ' 7Y ?<< = ' (@'
CD!@; D #C;' J ' J?B= #?C=

MM)+66 H
+ *' Q'
* . '
< -& 0

% &' 1 =A ' ?<< ! ?= ;4 = ' !# ;' B ') ; @ 4
#B ' / ; =# < ' #B ;' (K @B '#?' #B ' / ;8 L
< =#

+ & & +' #B #' #B ' 1 =A ' 0 ## ;' E #B' #B '
?<< ! ?= ; ' K @B4 = ' / ; =# ' K @B4 D '
K; =# '

2*. * ' +,'
& ' E+
* .0

% &' ?; ; '?!'#B ' ?C ' ; 4 ' KK?>=# '#?'
D ' ! F '?='#B ' C!C 88' K8 @

% &' 0?; ' / ; =# D>' ?; ;' ?!' B ' '
B AB' ?<< ! ?= ;' C;= ' #B ' / ;8 < =#'
88' %C >' = F#' # # =' ?!' #B ' @8? @' =' #B '
!?;=??=' 4

) ; '

;! ' , * 4 4+ 4 ,

/ & (' ' ?88 ' @ !

% &' 0?; ' %B C; ;' + KC#' K;?# # ' A = #' M *+ '
@ 88 =A' I' J?B= #?C=' ' 0?; ' (@; # ;>4 =' #B '
?88 ' ?!' / ;8 < =# D !?; ' B <

% &' =C# ' ;

+ & & +' #B #' #B ' 1 =A ' ?@ #' = ' JC # @ ' M ' *
8 ;"' @?=# =?E' #?' ; ! ' = ' C8# #B ' =C# ' / ' .8 .0
;>' (;C=# ?!' / ;8 < =#

') & & 0' $ # ? ;' 88' #B ' R,$/+ ' ;9' d = =# '
; ' #?' D ' " K '#B 4 (@?= ' %BC; >' ?!' JC= 4' K -'
= F#4 = ' #B # ' / ;?@8 < # ?=' !?;' #B # !! @#4 D '
D;?CAB# =' #B ' = F# (;C=# ?!' / ;8 < =#

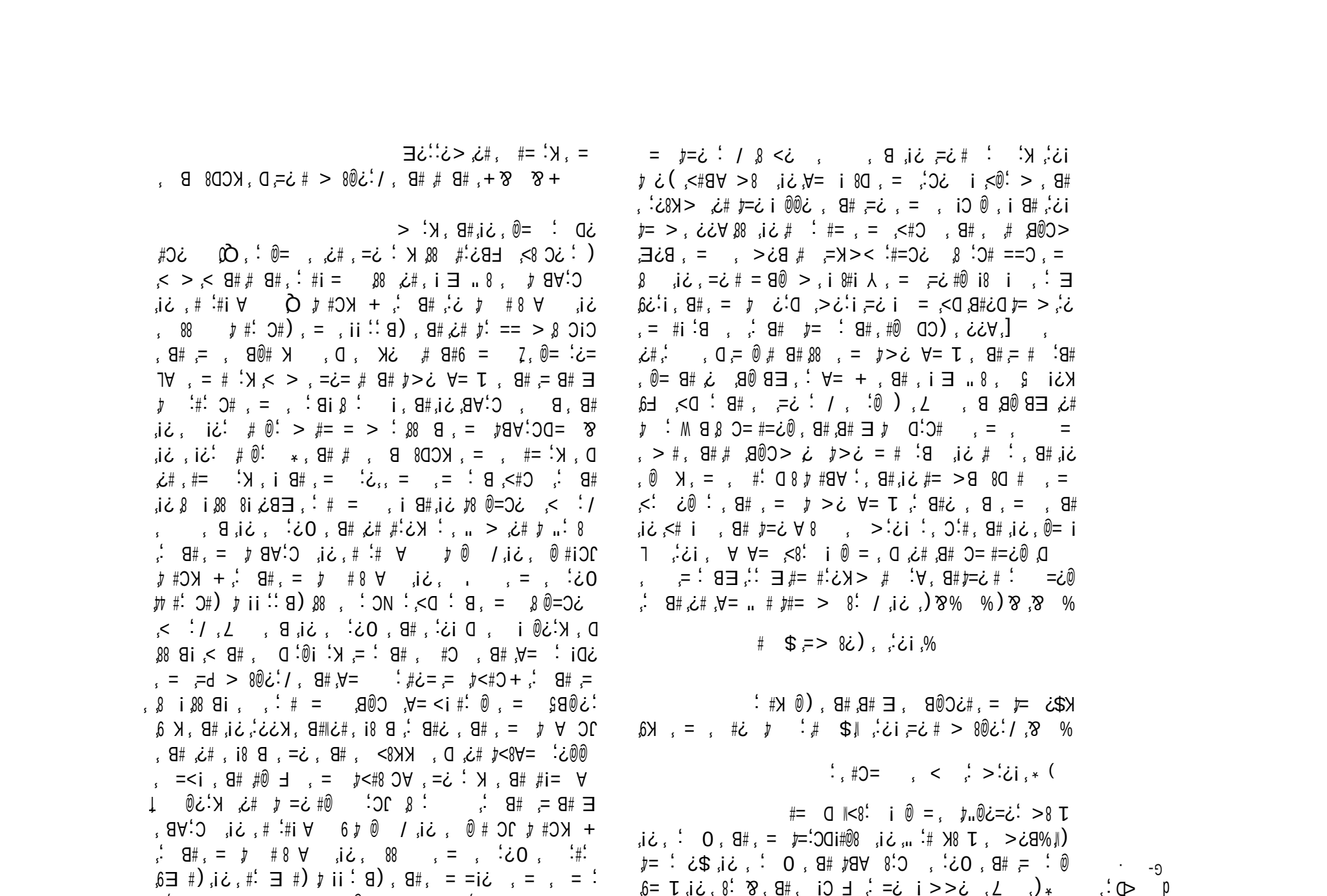
& (0 & +' #B #' #B ; ' D ' =' ; ! ' ?!' @?=9' M . , ' +'
?8 =@ 4 !?;' #B ' #B' ?!' #B ' 3C =' =# #?' B ')+ .+ - '
7> = ' #B #' ?<< ## ' ?!' ?= ' ?!' ;>' (# # ' +' & ' C 0'
D ' @B?! '#?' D; =A' =' #B ' ; CAB# #B ;?! +' & ' . &'
+,' & '
T 0

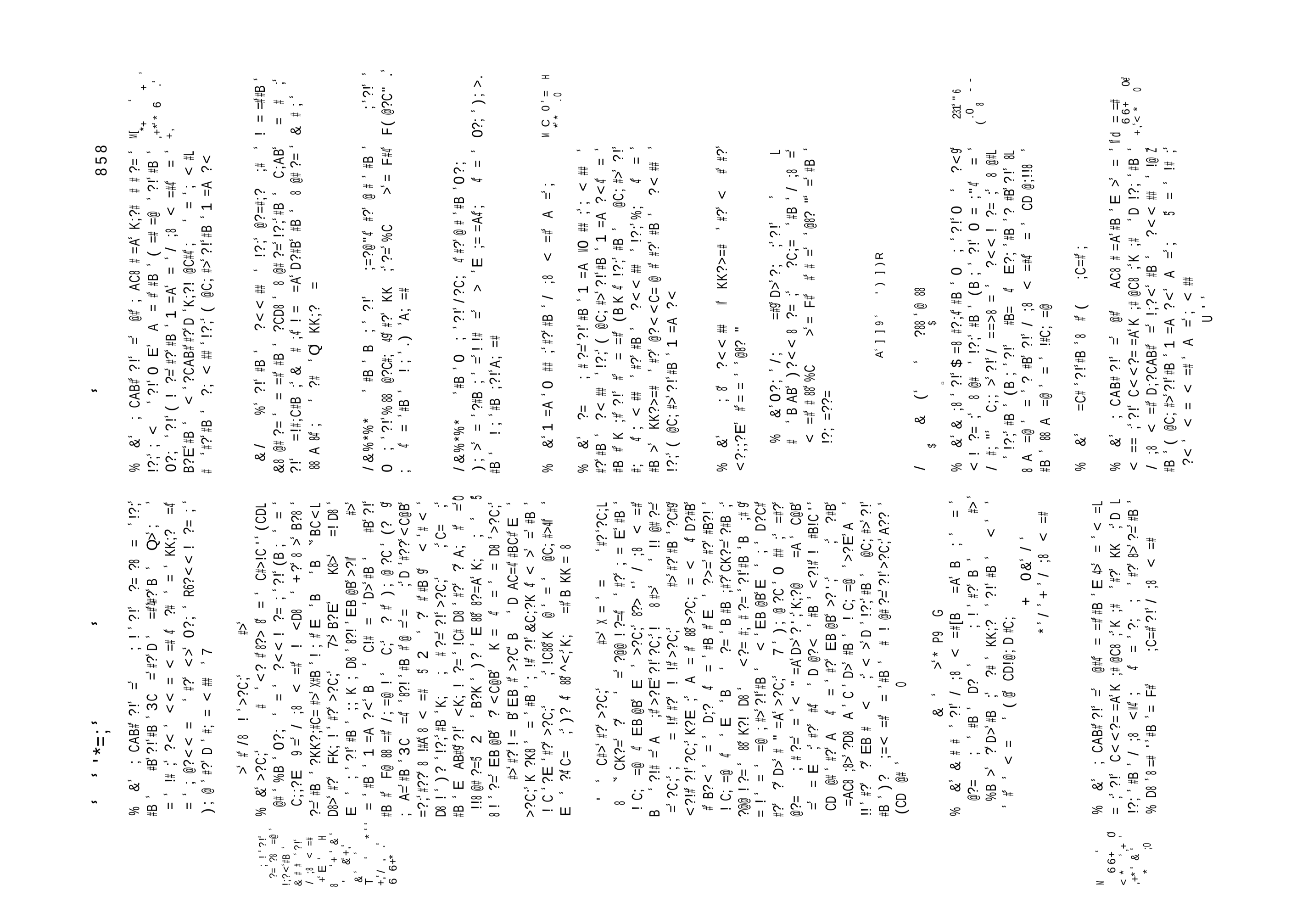
+ & & +' #B #' #B ' ; 8' & # # ' ?!' / ;8 L M)+66 -&+ 0
< =# K ; # '#?' 8 @# #B ' ' ?<< ## 4 '7 8!?
#B ' ?<< ## ' !?88?E =A' ' %B ' (< ## ' !?;'
(@C; #>' ?!' #B ' 1 =A ?<' #?' @?=! !# ?!' B>=' ?!' >'
(# # 5 %B ' ?<< ## '!?;'#; '#?' @?=! !8' K!' (> ='
?!' ;>' (# # 5 = '#B ' ?<< ## '!?;' @?=#;? ;# '
8 @# ?= '#?' @?=!! 5 ?!' ! '?!' ;>' (# #

% & $%& ' #B ' ? ' ?!' #B ' #B; '& # # '
 '; #C;='#?' #B ' ?C 4 = '; K?;# '#B ;' ; 8'
&8 @# ?= ' EB @B' E ; ' '!!?' ?E

?<< ## '!?;' #B ' ; !
?D 8 #>' ;;?= ' C;;?E
& ;8 '?!' 0?#B =' 0 ; '?!') ; =#' (7' 2 88 ' < 8#?=

?<< ## '!!?;' (@C; #>' ?!' #B ' 1 =A ?<'
+C" '?!' 3C = D ;;>' 0 ; '?!' AA = ' '
& ;8 '?!' ;A 8 ' 0 ; '?!' 1 8DC;='
& ;8 '?!' ; C!C; ' 0 ; '?!' 8 @"D ;;?=>'
& ;8 '?!' ?;#?C=' (I J?B=' FE 8
& ;8 '?!' 0?#B ='
& ;8 '?!' 0 =' (I J?B=' ' '
0?; ' ?! ' ?D ;# ;C " B =" '
0?; ' ;< @B 8' (I ;@B D 8 ' C; '
0?; ' / ?8E?;#B 2 88 <' AA = ' '
0 8 FI (K #8 '
0 ; '?!' J ; E?? ' (I 2 88 <' < 8#?='
0 ; '?!' 0 < =A#?C= (I J < ' A 8 >'
 I $; =@ ' ?=#A?<;>' 2 88 <' =A '
0 ; '?!') ; =# I 8 FI C= =AB <
0 ; '?!' ;?





' &/8 %' !;?<' #B ' ?<< ## '?!'%; 4 !?Z T
' (CKK8>' ?!' #E B# ' !?C;' #B?C8 = ' = ' (F BC=9' + * (0'
0 ; ' K?C= ' (# ;8 =4 !?;' ?C#; " =A' (B K ' ?!' E ;;' & < ' +,'
#?' < =# ;# #B ' #; ' = ' ! = ' #B ' @? !# 4 ; ' E;-
= ' ?; ; ' #?' 8>' ?=' #B ' % D8

% &' ; 8' ?<< ## T KK?>=# '#?' < # #B '
= AB# # ! ' ' @8? "'

% &' 0?; ' /; =# D>' ?; ;' ?!' ' [7
B AB' ?<< ! ?= ;' ?C;= '#B ' / ;8 < =#
# 88' %BC; >' = F#4 # # =' ' @8? "' =' #B ' !?; 9'
7 =??=

' , , ***4 4+ 4 ,

/ & (' ' ?88 ' @ 88

% &' 0?; ' 0? # A= ' #B ' ! C; =@ 4 B =A' M^%& ' = 6 .'
!?;< ;8>' # " =' #B ' ? #B' ?!' 88 A =@ 4 = ' ? #B' ?!'
/ ;8 < =#

* ' %(' ?!' #B '8 !# (;C=#;

% &' & # # ' ?!' / ;8 < =# B =A' ; K?;# '#B ;' M '
8 @# ?= ' ?!' #B ' ?<< ## '!?;' K; # D 88 4 = '!?;')+6 6
!@C! =A' K;?# !# ' !?;' ; < '?!' 0 E4 !?;' EB @B' ,+*' <* 7 '
; 8' ?!' #B 9' 0?; ' ?!' (! ?=' E ; ' = < 4 = ' / 'Q',+*
!# ;' ?< 'T D # 4 !' #B ' ?< B ## '!8 ?C8 ' ?=8>' *+
K; K ; 4 = ' ; K?;# K; # DC! = ! 4 E #B?C# < 9'
8 =A' E #B' #B ! ' K;?# !# 5 ?;' !' ' = E' ?< ## '
!# ?C8 ' D ' @B? ! =4 D?#B' !?;' !@C! =A' #B ' '
K;?# !# 4 = ' !?;' ?#B ;' K; # DC! = ! 5 #B ' @?= L
; # ?=' #B ;?!' 8 > 9

, ' & ' ' &/ %' !;?<' #B ' ?<< ## '!?;' (@C; #>' ?!'
#B ' 1 =A ?<' = =# #B 7 (CKK8 ' #?' B ' A =' #?'
#B ' 1 =A4 D;?CAB# =' = ' ;

&(0 &+' =' / ;8 < =# = < = ?=#; @ =# 4
#B # 88' (CKK8 ' =?E' = @ ! ;4 D ' A =' #?' #B '
91 =A' !?;' #B ' ! =@ ' ?!' #B ' # ?=4 = ' CKK?;#
?!' #B ')? ;=< =# M 0M

*(' # ' ?<< ! ?=' C= ;' #B ') ; # (84 !?;' =' ,)+6 6 , '
=NC ;>' D?C# #B ' 8 CAB# ;' ?!')8 =@? 4 ; / ' ,+* '
9 F * '
/+ ' & '
%& +' = < = ' @?B#; @ =# 4 #B # B ' # ' 0& *'
B AB' ?<< ! ?= ;' #; = < ## #B ' BC<D8 ' #B = ' +,' 3 -+ '
?!' #B ' / ;8 < =# #?' B ' #>' ?; ; =A' =' =L * .0
NC ;>' =' #B # < ## ;4 EB ;ND>' #B ' B?=?;' = ' C L
@ ' ?!' #B ' # ?=' < AB# D ' = @

*%' D =A' C;A ' #B # #B ' ?<< ! ?=' B?C8 ' K;?L
@ ' E #B' 8 A =@ 4 ' D =A' ' = # ?= 8' ?=@ ;=4
= ' #B # #B ' @? ;>' D ' < ' "=?E=' #?' #B '
?C ' D !?; ' # ' ?C;=< =#' ') ; @ ' ! C; '
#B <4 #B # B ' ?CD# ' =?# ?!' B ' 7 ' A =A' # L
! @# ?=' #?' B ' / ;8 < =# =' #B # K?>=#4 = ' #B #
D !?; ' #B >' K ;#

' ' %* ' D =A' < ' #B # #B ; ' D ' ' ?<< #L
' KK?>=# '!?;' ! @C! =A' ?!' KK 8 4 #?' @?=! 88'
?!' ! ' ?!' ;>' (# # Z *#' E ' A; ' #?4 = ' ?;L
; ' #B # #B ' ; 8 (# # ' ?' AK ; # #?' 8 @# #B '
' ?<< ## 4 # #B '; ! =A' ?!' #B ' ?C! '

% &' B ; ' ?!' ;=?@" ' @?<K8 =# A = # % 88 9'
@?C#; 4 ; < ## ' #?' #B ' @ =< ## '!?;' ! C! =A'
KK 8 ' #?' D ' =?< = #' 7

/ &%*%* ' M %B?< ' (" =' #?' @ # ' ; 8'
K ; ?= ' #B ; =' @?=# = 47#?' K;? ' #B ' # =?;' ?!'
E; # ' ?=' ! !# =' > ' E ;= =A4 ; ' = ' A; =#

/ &%*%* ' #B ' 0 ; ' ?!' / #8 ;' #?' @ # ' #B '
' ?C=# ! ' +?C A ;' = ' & ;8 ' ?!' (!?;#B4 ?=' ! !L
=' > ' E ;= =A4 #?' ; !?C= ' @ ;# =' ?C< P ?!'
<?; >' ; M = ' A; =#

/ &%*%* ' %B?< ' $ 8@?= ;' ?!' 1 =@?;#B4 @; L
=A' ' /;?# @# ?=' ; 4 = ' ; @#

' & / %' !;?<' #B ' ?<< ## '!?;' (@C; #>' ?!'
B ' 1 =A ?<' = =# #B 7 (CKK8 ' #?' B ' A =' #?'
#B ' 1 =A4 D;?CAB# =' = ' ;

' ' <?# ?=' !;?<' #B ' ?<< ## '!?;' (@C; #>' ?!'
#B ' 1 =A ?<4 !?;' =NC ; =A' =' #B ' < ## ;' ?!')8 =L
@? '5 ' # ' ?<< ! ?= ;' ' =# < #4 #B # #B '
1 =A' B ' A =' ?<< ! ?=' #?' # ; 8 K ; ?B ' #?'
< " ' F @# =NC ;>' =' #B # < ## ;4 = ' #B # #B '
?<= ! ?=' E ' K !# #B ' A; # (84 = ' #B ' ?<9
< ! ?= ; ' E ; ' #?' < # #B ' !# ;=??=

+ & (* & +' D>' #B ' ?C! 4 #B # #B ' ' ?<< !9'
^.=D ' K;? C@ ' = ' ; 4 EB @B' E ' A; ' #?Z [

' & * 0' CK?=' #B ' ; @?<< = # ?=' ?!'
#B ' 0?; ' ?!' (! ?=4 ' K; =# ' D>' <>' 0?; ' 9'
?@ #4 =' ! ?; ' ?!' = 9 E' ?E # ?!' / =@8? 4
; 4 = ' ?; ; ' #?' 8>' ?=' #B '% D8

% &' ?<< ! ?=' 9 G ' !?;' $ = ' = ' !?;! C8#C; ' ! ?<< !M
@ 88 '!?;4 = ' #B ' = < ' ?!' #B ' ?<= ! ?= ; ' ; + ' ,+*
J ' Q'
J+*, * 0

0% &' NC !# ?=' <? ' = ' !# # 4 !' #B ' !?; < ;'
[?< ! ?=9!?;' ! = ' = ' !?;! C8#C; 4M !# ?C8 ' D '
@?=# =?E 4 ?;' #B ' < ## ; ' #B ;?!' ; < ## ' #?' #B

d = =#

* <
(8 W ;-

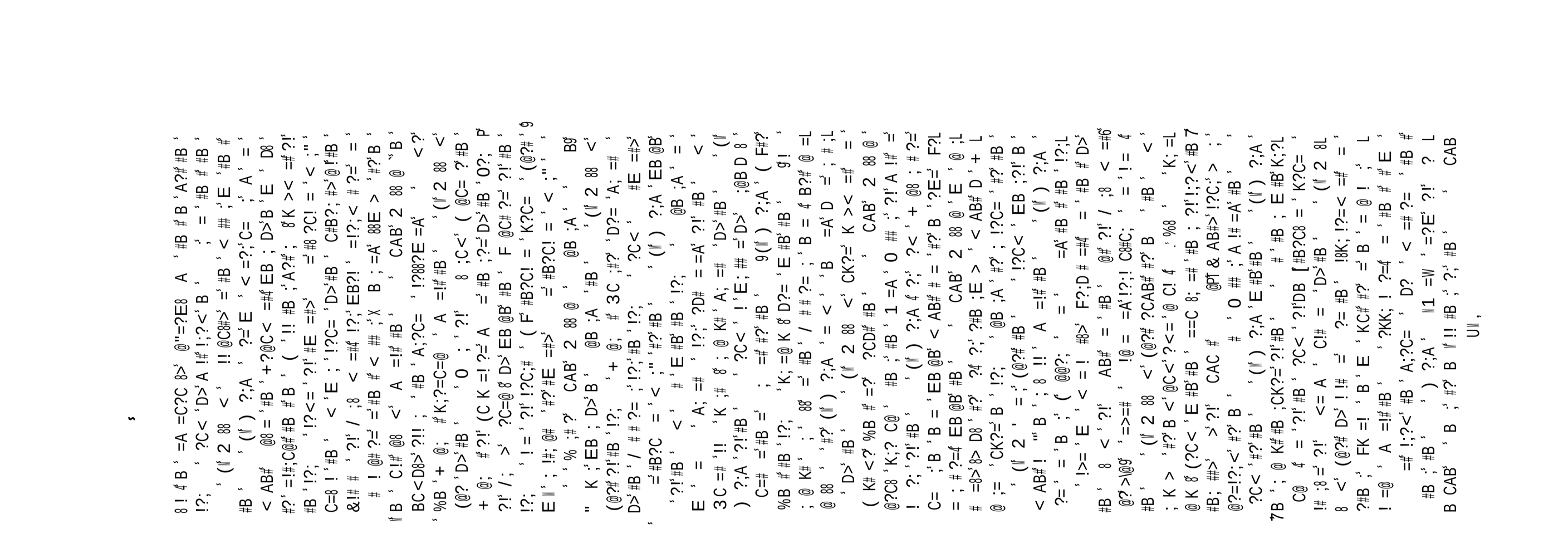
) - '* H
6 .' +'
&')+6 '
6

M= *.'+,'
1+ & 6 '
Q-' 0'
/ * & 0

M= .
3* . 0

ME+ < '+,'
3 0+?' 0;'
+ +'
9*? 00'

M -+ '?!'
M1@ -' M') ?;A '7 M1 =W ' ?!' ? B CAB4' @; =A' ; K # L
?='?!' '! = 4' ; 4' = ''; < ## '#?'#B ' ?< =
!?;' (@C; #>'?!9#B ' 1 =A ?<



;(

ʻ ʻ ʻ ʻ ʻ ' *=:

#?ʻ ʻ) ?;A ʻ 1 =W ʻ ?!ʻ ? D CABʻ B ʻ !! #B ;ʻ
CK?=ʻ #B ʻ #E =#>ʻ @? ʻ >ʻ ?!ʻ @#?D ;ʻ * jʻ ^H
=>=# ʻ ?= ʻ > ; ʻ EB @Bʻ *=!#;C@# ?=ʻ #B >ʻ ?; = ʻ
#?ʻ 8>ʻ =ʻ #B ʻ 8 ;" ʻ B = ʻ #?ʻ D ʻ ; K?;# ʻ #?ʻ #B ʻ
/ ;8 ʻ = ʻ ! ; ;ʻ *=!#;C@# ?=ʻ ?!ʻ #B ʻ !?;< ;ʻ
K?;#ʻ 2 B @Bʻ K?;# ʻ ?!ʻ #B ʻ ?<< ## ʻ !?;ʻ
(@C; #>ʻ ?!ʻ #B ʻ 1 =A ?<ʻ D =Aʻ ; ʻ =ʻ / ;8 9ʻ
< =#ʻ = ʻ #B ʻ ʻ + ! = ;ʻ = ʻ B ʻ %C#?; ʻ = ʻ
C; #?; ʻ D =Aʻ #B; @ ʻ @ 88 ʻ D?#Bʻ #ʻ #B ʻ D ;;ʻ = ʻ
#B ʻ A; # ??;ʻ ?!ʻ #B ʻ / ;8 < =#ʻ C! ʻ D>ʻ ʻ
@ ;ʻ ʻ C! ʻ 9 = ʻ > #ʻ ==#ʻ 9 ?<K ; =Aʻ 8D #ʻ
#B #ʻ #B ʻ ʻ + ! = ;ʻ E ʻ @ # ʻ K ; ?= 88>ʻ KK; L
B = ʻ = ʻ B ʻ #C#?; ʻ = ʻ @C; #?; ʻ E ; ʻ8 E!C88>ʻ
E ;= ʻ #ʻ #B ʻ < ; #ʻ !?! ʻ . ʻ & =DC;ABʻ = ʻ
?#B ;E >ʻ @@?; =Aʻ #?ʻ 0 Eʻ %B ʻ ʻ (Hʻ) 8D ;#ʻ
& ' ?#ʻ ?@ #ʻ ʻ K;?@C; #?;ʻ !?;ʻ #B ʻ ʻ KC; C ;ʻ
) ; ʻ #B #ʻ #B ʻ ʻ) ?;A ʻ h1 =W ʻ ?!ʻ ?! 9ʻ
B F ABʻ + ! = ;ʻ ʻ B ;ʻ ; ʻ = ʻ ; #?C; ʻ #?ʻ #B ʻ
@ !#ʻ (ʻ) ?;A ʻ 1 =W ʻ ?!ʻ ?! B CABʻ B ʻ
!! #B ;ʻ < AB#ʻ D ʻ + @ ;= ʻ @?=!?;<ʻ #?ʻ #B ʻ ; K?;#ʻ
?!ʻ #B ʻ ?<< ## ʻ = ʻ !C;#B ;ʻ =9 ʻ #B?C! = ʻ
K?C= ʻ !# ;8 =ʻ !?;ʻ <= A ʻ !C!#<= ʻ D>ʻ #B ʻ ʻ
(ʻ 2 88 <ʻ #B;?CABʻ B ʻ ! !# =ʻ D= #B ʻ <K; !?=9ʻ
< =#ʻ = ʻ =ʻ = =A4ʻ B ʻ ?= ʻ =ʻ 8 Eʻ #?ʻ 0?= ?=4 9ʻ
= ʻ =ʻ KC;A =Aʻ Q @8 ; =Aʻ ; 8ʻ 8 A =@ ʻ C! ʻ
A =!#ʻ B <ʻ = ʻ CK?=ʻ B ʻ &!# # ʻ = ʻ !?;ʻ =!#;C@#9ʻ
=Aʻ ?!ʻ #B ʻ K?;#ʻ ?!ʻ #B ʻ ?<< ## ʻ ; K # ʻ #B ʻ
B!#;C@# ?= ʻ = ʻ K K ; ʻ K ;# @C8 ;8>ʻ D? < =# ?=9ʻ

#B ;ʻ = ʻ B ʻ %C#?; ʻ = ʻ C; #?; ʻ !ʻ B ʻ =>ʻ B ʻ
!?;ʻ #B ;ʻ =# ; !# ʻ #?ʻ < " ʻ K >< =#ʻ = ʻ 8 ;>ʻ
#?ʻ #B ʻ ʻ (ʻ 2 88 <ʻ (@?# ?!ʻ ; =ʻ ?!ʻ #B ʻ ʻ
K; =@ K 8ʻ !?C< ?!ʻ ! !# =ʻ BC= ; ʻ K?C= ʻ !# ;8 =ʻ 7ʻ
= ʻ ==C " =# ʻ #B ; ?!ʻ @?=!?;<ʻ #?ʻ #B ʻ @#ʻ ?!ʻ / ;94ʻ
8 < =#ʻ !;?<ʻ Qʻ !# ;ʻ #B ʻ #B; ##>ʻ >ʻ CAC 7ʻ
<ʻ 9>@9 & AB# ʻ !?C;ʻ > ; ʻ = ʻ > ;8>ʻ = ʻ # ;<8>ʻ
= # < ʻ @?< =Aʻ C; =Aʻ #B ʻ =?#ʻ K >< =#ʻ #B ;?!ʻ
= ʻ #B #ʻ =ʻ K8 @ ʻ ?!ʻ 88ʻ ?#B ;ʻ + <= A ʻ EB @Bʻ
< >ʻ B ʻ @@8 < ʻ D>ʻ #B ʻ ʻ (ʻ 2 88 <ʻ (@?#ʻ
!;?<ʻ #B ʻ ! ʻ) ?;A ʻ 791 =W ʻ ?!ʻ ? B CABʻ L
! = ;ʻ = ʻ 8! ʻ #B ʻ ʻ 0?; ʻ ABʻ ?<< ! ?= ;ʻ
= ʻ &!# # ʻ ?!ʻ / ;8 < =#ʻ ʻ ! ? 8A ʻ = ʻ
; D>ʻ ! ? 8 ʻ #B ʻ ʻ) ?;A ʻ 1 =W ʻ ?!ʻ
? B CABʻ ! = ;ʻ = ʻ B ʻ %C#?; ʻ = ʻ C; #?; ʻ
!;?<ʻ 88ʻ ?#B ;ʻ <= A ʻ =ʻ # < ʻ @?< =Aʻ = ʻ ?;L
= ʻ 0 ## ; ʻ ?!ʻ B?;= =Aʻ ?=ʻ ! !# =ʻ > ʻ = ʻ ?#B ;ʻ
F @C#?; ' ʻ = !C86ʻ #?ʻ D ʻ ; @#ʻ B ; CK?=ʻ =ʻ
!?;< ʻ ʻ !! ;

/ & % * % * ʻ 0?; ʻ (#; = ;4ʻ ; =Aʻ E ;; = ʻ #?ʻ !0?;
#B ʻ % @" < =ʻ = ʻ ?88 @#?; ʻ ?!ʻ #B ʻ / ?8 ʻ <?= >4ʻ * & 7 *
#?ʻ < " ʻ K >< =#ʻ #?ʻ B <ʻ ?!ʻ B ʻ ;; ; 4ʻ ; ʻ = ʻ
; < ## ʻ #?ʻ #B ʻ ?<< ## ʻ !?;ʻ (@C; #>ʻ ?!ʻ #B ʻ
1 =A ?<ʻ 0 0

% &ʻ ; 86ʻ ?<< ## ʻ KK?>=# ʻ #?ʻ < #ʻ #B ʻ
= AB#ʻ #! ʻ ʻ @8? "

% &ʻ 0?; ʻ /; =#ʻ D>ʻ ?; ;ʻ ?!ʻ ʻ 7 ʻ
B ABʻ ?<< ! ?= ;ʻ ?C;= ʻ #B ʻ / ;B < =#ʻ
88ʻ #?ʻ <?;;?Eʻ #ʻ # =ʻ ʻ @8? "ʻ =ʻ #B ʻ !?; =??=

ʻ , , ***4ʻ 4+ 4,

/ & (ʻ ʻ ?88 ʻ @ 88

* ' % (ʻ ?!ʻ #B ʻ8 #ʻ (;C=!ʻ ;

% &ʻ NC # ?=ʻ <? ʻ !ʻ #B ʻ (! ?=ʻ !BDC8 7ʻ D ʻ #?
?C;= ʻ #?ʻ #B ʻ ! ;!#ʻ ?!ʻ JC8>ʻ ?;ʻ ? <D ;4ʻ = ʻ
D =Aʻ KC#ʻ #?ʻ #B ʻ ?# 4ʻ #ʻ E ʻ @ ;> ʻ #?ʻ #B ʻ ! ; #ʻ
>ʻ ?!ʻ JC8>

% &ʻ ; CAB#ʻ ?!ʻ =ʻ @#ʻ !?;ʻ 8 < # =Aʻ = ʻ ; !#; =9ʻ MM - ʻ,+*
=Aʻ C# ?= ; ʻ Di AB#ʻ =ʻ !;?<ʻ #B ʻ ?<< ## ʻ!?;ʻ
(@C; #>ʻ ?!ʻ #B ʻ 1 =A ?<ʻ ; 4ʻ = ʻ !# ;ʻ ?< ʻ # < ʻ ; -ʻ
K =#ʻ #B ;?=4 ?; ; ʻ #?ʻ 8>ʻ ?=ʻ #B ʻ % D8

ʻ %* ʻ = ʻ ?8 4ʻ D;?CAB#ʻ =ʻ !;?<ʻ #B ʻ ,ʻ ʻ &ʻ
?<< ## ʻ !?;ʻ (@C 9 #>ʻ ?!ʻ #B ʻ 1 =A ?<4ʻ = =#ʻ ʻ+,ʻ &ʻ
#B ʻ (# # 4ʻ ?!ʻ #B ʻ / ?8 4ʻ = ʻ #B ʻ @B ;Aʻ ʻ ?!ʻ #B ʻ ;; ; ʻ + 0ʻ
C ʻ #?ʻ #B ʻ ?C=#; >ʻ = ʻ ;<>4ʻ EB ; E #Bʻ #B ʻ
/ ?8 ʻ @#ʻ ʻ DC;#B = 4ʻ ;

.?C=' ?!' #B ' / ;8 = =#4 #' #B ' / # =#' A # ' ?!' #B ' / ;8 < =#' ?C 4' = ' !' #B ' K ;#>' C<<?= ' @?<K ;4' #?' < ;"' #B ' ! < 4' #B #' #B ' eC<<?= ' E #B' #B ' &F @C# ?= 4' = ' #B ' ?#B ;' K @ ' K;?L C@ ' D>' #B ' KC; C ;' < >' D ' A =' ?C#' #?9 ' = ' =!E ;4' #?' #B ' !! @#' #B ' ! < '[< >' D ' ! =' = ' ; #C;= 4' E #B =' F' > ' =' #B ' @?<<?=' !?;<4 [C ' !?' #B ' @ C! ' ?;' @?<K8 =#' < >' D ' ; >' K; 9' ' K ; ' !?;' #B ' / ;8 < =#4' #?' K;?@ ' #B ; =4' EB =' #B ' < ' XB 88' D ' A =' @ 88 9' =' #B ;' K; =@ ' ;' /;? =A' 8E > 4' #B #' =?' + @; # ' D ' A =7' ?C#' =9' D! =@ 4' D?#' CK?=' K @ 8' KK8 @ # ?=' #?4' = ' 7' (=# =@ ' K;?=C=@ ' D>' #B ' / ;8 < =#4' = ' =?' ?#B ;E ! ' = ' F@ K# =A' 88E > ' !;?<P #B ' @#4' 88' (C<<?= ' ?!' %; !?=4' = ' !?;' ?#B ;' KCD8 @"' ; < 4' = ' F @C# ?= ' Q' K;?@ ! ' #B ;CK?=49' EB @B' ; ' #?' K;?@ ' ' !?;< ;8>' = ' 8 #8>4' /;? =A' #B #' #B ' !?; ' # # ?=||' #?' D ' < Z ' D>' 8 ; =@ ' ?!' #B ' 0?; ' ?!' (! ?=4' !B ''' !?C= '=?' F@ K# ?=' ?!'K; C @ 8 #>' A = #' =>' K ;#>4' =' =>' @# ?=' < >' D ' ; ! 4' C=# 88' #B ' !?; ' # # ?=' D ' '@ 88 ' D !?; 4' = ' C!# = ' D>' #B ' / ;8 < =#

8 ||= =#' #B ' &+' #B #' #B ' / ; @ ' ?!' 2 = ' (?8 ' =' ; # 8 ' 2B!? ' ; AC8 # 4' = ' ; < ## ' #?' #B ' ?<=C## ' ?! %; ' ' T

% &' ; 8' ?<< ## ' KK?>=# 9' #?' < #' #?L <?;;?E' #' =>=' '@8? "

) *' 0?; ' K; =#' D>' ?; ;' ?!' ' [' AB|| ?<< ! ?= ;' ?C;= ' #B ' / ;8 L < =#' # 88' %BC;! >' = F#' #' # =' '@8? "' =' #B ' !?; =??=

' , , ,4' 4+ 4,

/ & (' ' ?88 ' @ 88

% &|| =C# ' ?!' #B ' 8 #' (;C=#' ; f

,'2,, - *' +,' /&%*%* ' K; =# ' D>' #B '8 # ' !! @ ; ' +,' #B ' &' *6 0' ;<>4' @; ' +' / ' ;

&+4' EB #B ;' K?;#' K; K ; ' D>' #B ' ?<L < ## 4' ?;' #B ' ' / # # ?=4' *B?C8 ' D ' ! ;!#' ; 4' = ' D =A' KC#' #?' #B ' ?# 4' @ ;> ' #B #' #B ' / # 9' ' # ?=' D ' ! ; #' ; ' 7 5

% &' ' / # # ?=' ; 4' @; =A' (|| J?B=' ?@B; =' = ' B ' C# ?= ; ' #?' < " ' K >< =#' ?!' #B ;' % @"' C#>' ?!' #B ' / ?8 ' #?' #B ' &F@B NC ;' #B 8' #B ' / # L # ?= ; ' < >' A #' K >< =#' ?!' #B ;' ;; ; ' C ' ?=' #B #' !?= 7 = ' !# ;' ?< ' D # ' ; < ## ' #?' #B ' ?<< ## ' !?;' (@C; #>' ?!' #B ' 1 =A ?<

% &' ; CAB#' ?!' =' @#' ?C;= =A' #B ' C<< ;' (C<<;' (! ?=' #?' #B ' ! ;!# ?!' JC8>' ; 4' = ' A; ' #?' 0

%' = ' ?<< ! ?=' D;?CAB#' =' !;?<' #B ' ?<9' @#' !?;' < ## ' !?;' (@C; #>' ?!' #B ' 1 =A ?<4' !?;' ; 8 =A' #B ' 0 E ' Q' K; @# NC 4' = ' !# ;' ?< ' D # ' D;?CAB#' =' 8 > ' # 88' #B ' = F#' (;C=#' ?!' / ;8 <7

' %*K ' D;?CAB#' =' !;?<' #B ' ?<< ## ' !?;' , ' #?' (@C; #>' ?!' #B ' 1 =A ?<4' #B #' < 89' D ' !?8 9' D>' E B#N ' E AB#4' = ' ?#B ;' A; = ' D>' =' C= !?;<' < !C; 47' ; ' C ' ; < ## ' #?' #B ' ?<< ## ' ?!' %<

% &' ; CAB#' ?!' =' @#' @B =A =A' #B ' C #?<' ?!' + @# # =A' = ' E; # =A' =' @; < = 8' K;?@ ! 4' D;?CAB#' =' !;?<' #B ' ?<< ## ' !?;' (@C; #>' ?!' #B ' 1 =A ?<47' ; ' = ' 8 > ' # 88' #B ' = F#' (L ;C=#' ?!' / ;8 < =#

M ?* 0 -* 6 <*+- ,

% &' ; 8' ?<< ## ' KK?>=# ' #?' < #' #B 7' = AB#' #' ! ' ' @8? " 7 0

% &' 0?; 4' / ; =#' D>' ?; ;' ?!' ' 7 ' 0 ?<< ! ?= ;' ?C;= ' #B 7' / <8 < B#' # 88' #?' <?;;?E' #' # =' '@8? "' =' #B ' !?; =??=

' ' , , *4' 4' 4,

/ & (' ' ?88 @ 88

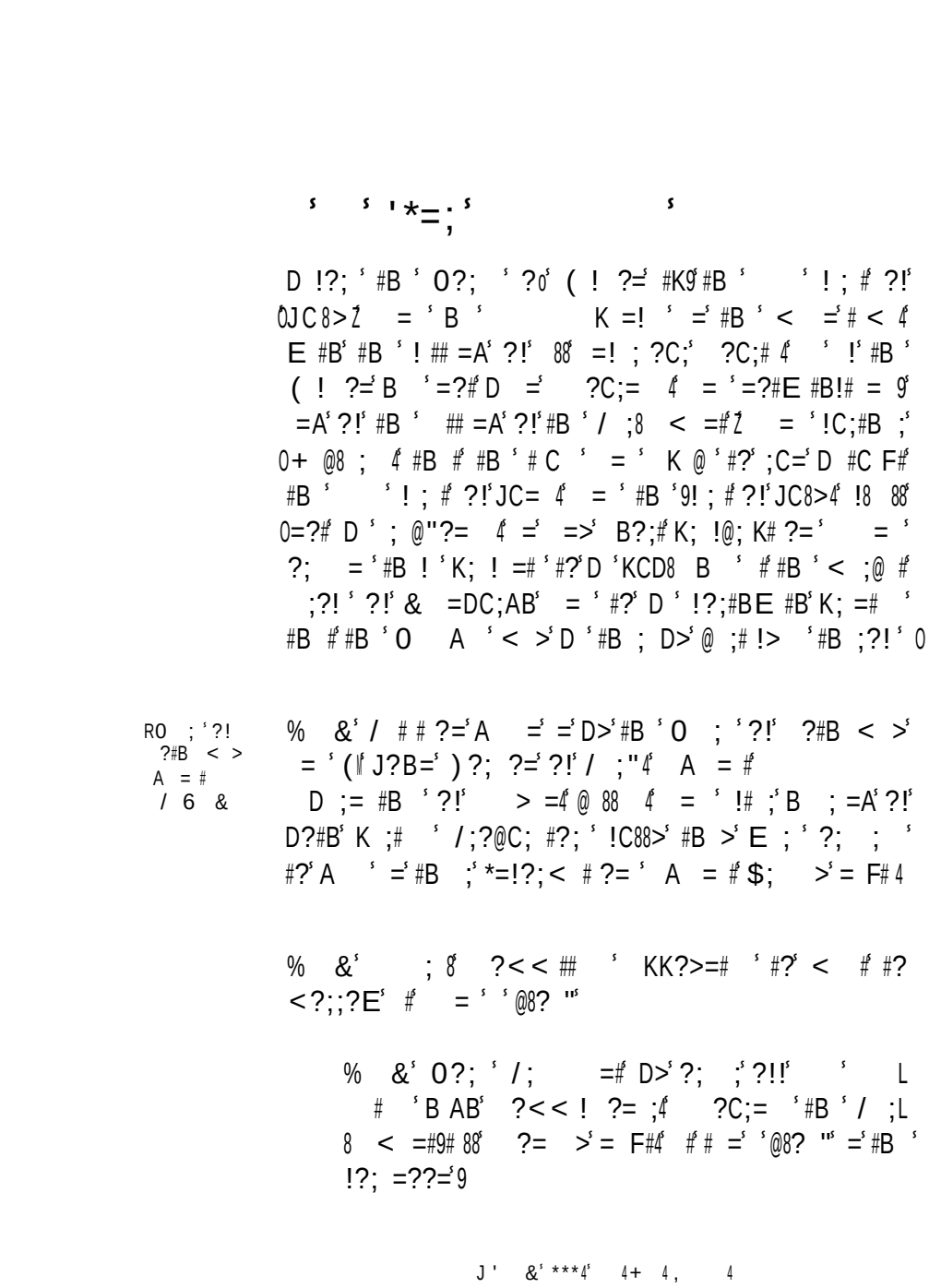
% &' =C# ' ?!' #B ' 8 #' (;C=#' ;

% &' & ;8 ' J ; B 8' D =@ ' F@C! ' !?;' ?< ' ! E' > 4' =' ; K @#' ?!' B ' 0 >' *= K?! # ?=' M1 *' / * & G- .

3
||% ! &' @#' ?C;= =A' #B ' (C<< ;' (! ?=' # 88' #B ' ! ; #' ?!' JC8>4 #?C#@B ' E #B' #B ' (@ K# ;' D>' B ' # ' ?<< ! ?= ;' =' #B ' 8 !C 8' < == ;4' = ' ?; ; ' #?' D ' KCD8 B

0 %' ?C;= =A' #B ' (C<< ;' (! ?=' # 88' #B ' ! ; #' ?!' JC8>

$ 4 $
' ' (& *) ' 0 +' ?= ; =A' %B #' #B ' ## =A' ?!' #B ' / ;8 < =#4' D AC=' #B ' =>=#B' ?!' >' = # =#4' < >' @?=# =C ' !?;' #B ' ?= #B' ?!' JC= ' = F#4' EB ; D>' #B ' 0 A ' @ ==?#' ## = ' #B ' (C<< ;' (! ?=' =' # ' ?; = ;' # < 5 +?' #B ; !?; ' E #B' @ ' = ' ?= =#' ?!' #B ' &!# # ' ?!' / ;8 L < =#4' ?C;=' #B ' (! ?=4' XEB @B' !# ?C8 ' D ' =' @?C;! ' #B ' ! ; #' ?!' JC= ' = F#\' #?' #B ' ! ;!#' ?!' JC8>' = F#4' @?=# =?9E =A' 88' @# ?= ' = ' @ C! ' K = =A



s s s ' *=-.
=;
& (O &+ 1* #B # #B ' ; NAB# ?!' =' @# D '
D;?CAB# ='!;?<'#B ' ' ?< < ## 'CK?='#B '
?# ?=
' %* 'D;?CAB# ='!;?<'#B g ' ?< < ## '0 d =#m'
#B # @B' K =# ?!' 8 ; # = ' EB # ' E = 1 D ' ?8 '
#B '> .' > @P Q=>=# '! ⅈ #B; ##>'!?C;' (B 89
8 =A'!@?#'#B 'K =#1 ;
% & @# !?;' @8 ; =A' #B ' !?;< ;' O E ' < '0, - ' = =#
= =#B '(8 '?!'D ="';CK# '0 = ' A =' ; 1 =' '
!# .' ?< ' D # ' = ' < = < =#'#B ;?=1 KC#'#?' = . 0'
#B ' ?# ' KK;? ' ?;' =?#1 = ' @ :> ' =' #B ' ;9'
; #
/ &%*%* (' (#; C@B =' ?!') 8 =" = 1 ' ' * -& ' 8'
O 88 ' (#C ;#; ' < ## '#?'#B ' ?< < ## '!?;'K; # +, 3 0
!! .' :'#?@?= .'#B ' < 1 ='#?'A; =# 2 :; =#
#B '·?=' !?;' # # ?='D !?;'#B ' / ;8 < =#1 !'#B >'
! = '@ C!
% & ' ; 8 ?< < ## ' KK?>=# '#?' < # #B '
= AB# # ! ' '@8? "
% & ' O?;' /; =# D>' ?; .' ?!' ' '
) ?< < ! ?= .' ?C;= '#B ' / ;8 < =# # 88#?'
<?:;?E' # # =' '@8?@"' ='#B '!?; =??=
J ' &' **1 4+ 4,
▒▒▒

' HW ?@ ' = 'B =W# < ' D ' 88?E ' D>'#B ' K; =@ K 8 4 D =A' D?C= ' ='#B ' EB?8 ' @?=# =# W ?!' #B ' D?= ' ?;' ?=#; @#5' ' 8!?W?!'#B W! ' CL # ?= ; ' D =A' !8 88' B?C= 4 @?=!?; <'#?'#B '# ; < ' ?!' #B ' ?= ' E #B ='#B ' ' ='> ; 4 ' D !?; '#B ' < " =A' ?!'#B ' @#5 ' 8!?' K;? =A4 #B #' EB # 8 A 8 8 A =@ 4 D>' *=B D # ?=4 ?;= =A4 ;; !89' < =#' C @ # ?=4 ?;' =>' ?#B ;' E >4 !B 88' B ' ?= ' E #B ='#B ' ! ='> ; 4 D>' ; #?; ' A =!# #B ;' C# ?= ; 4 !?;' EB # ! 88' C ' ='#B #' # < 4 !B 88' !8 = ' A?? 4 = ' B ' # ' DC;! ' ; ' !! @#4 !# ;'#B ' FK ; =A' ?!'#B '! ='> ; 4 ' !'#B ' @# B '=?# D ='< '7 '

% &' ; 8' ?<< ## ' KK?>=# '#?' < #'#?' <?;;?E' #' AB#' '@8?@"' ='#B '!?; =??=

0% &' 0?; ' /; =#D>'?; ;'?!'B ' L # ' ?<< ! ?= ;' ?C;= '#B ' / ;8 < =# # 88' ? >'= F#' #'# =' '@8?@"' ='#B '!?; =??=

' '

/ & (' ?88'@ 88

* ' %('?!'#B '8 !# (;C=#;

' %* ' D;?CAB#' !;?<'#B ' ?<< ! ?=' K9' K?>B! ' D>' B ' #>' !?;' =NC ; =A' =#?' #B ' (8 CAB# ;4?!'#B ')8 =@? 9< =4 K; =# 'D>'#B ;' / ; ! =#4 B @B'; 8 # =A' #?' @ ;# ='K; #' ;# @8 ' #; # ' = ' A; ' ='JC8>'* ' P =>=#>'?= 4 B 9' #C F#' #B '& ;8 '?!' ; 8B =4 = ' ?;') = ; 8' C@B =4 E #B' ! ; 8' ?!'#B ' AB8 = ' 8 = '9#B =' =' D 88 ?=4 = '#?'#B ' R` K?! # ?= ' ?!'#B ' 0 ; ' ?!')8 =A ; 4 = ' ?88?= 88' 884 B ; =A' *=!?; < L # ?= '?!'B AB' %; !?=' A =!# #B '& ;8 '?!' ; 9' 8B =4 #?C@B =A' #B ' ;# @8 4 #B ' ?# ?=4 ;L # @8 ' = ' + K?! # ?= ' E ; ' ; 4 = ' !# ;' ?< ' D # 4 !'#B '& ;8 '!B?C8 'B 'K;?@ ' A =!#4 ?;' 8 > Z *#' E '! ;!# KC#' #?'#B ' ?# 4 EB #B ;' #B ' ?# '!B?C8 ' D ' =! !# K; =#8>' ?;'=?#4 ?;' K;?@ ' ?;' 8 >4 = ' @ ; ' =! !# ?;'=?#5 = '#B ; !# ;' #' E 'KC#'#?'#B ' ?# 4 !'#B '1 =A ' ?@ # '!B?C8 ' B '?; ; '#?' =! !# K; =#8>' =' 'K;?@ '?!'#; !?=' A =!# #B '& ;8 '?;'=?#4 = '@ ;> ' ='#B '!! ;< L # 4 = ' =' ?; ;' A =' #?' #B '1 =A ' ?@ # #?' ; ! '(C =<?= '?!'#; !?=' A =!# #B '& ;8 'D !?; ' #B '/ ;8 < =#

E " * * " '#B # #B '& ;8 '?!' ; 8B ='D ' ?<9' ; ## 'K; !?= ;'#?'#B ' !#8 '?!'& =DC;AB4 ='?; ;' #?'B '#; 8

' ;N!' A =' =' D>' #B ' = # ; ' ?!' #B ' (>=? ' = ' / 8D>#; ' ?!' #B ' BC;@B4 K; ! =# ' D>' B ' 7 ' ?<< ! ?= ;' ; ' = '?; ; '#?'8>' ?=' #B '% D8

<R%/ ,+ '> ' & ')+6 ' 6 , + *',+* K F * 0' +' & ' 0& *'+,' & ' 3 -+ ' 6 0

M . .* , '+,' & ')& *-&0

M1 *'+,' +-252!1%7 @?<< ## <* ,+ *0

'M & ' CAB!?i#' =" @#?i;' =@?C; A =A'#B ' FL
G<+* + ' % &4 ; CAB!?i#' =" @#?i;' =@?C; A =A'#B ' FL
+',7- 00 K?;# # ?=' ?i' @#C 8D;?CAB#' =' i;?<'#B ' ?<< #L
?i'%; 4 ; ' = '?; ; '#?'8>'?=';#B '% D8
*= K?i # ?=' 0
M *F ' % &' ;NC 1?i' #B?8' F@Ci ' =';' K @#?i'B '
+', &+ '
G- .00

/ &%*%* '#B ' #>'?i'& =DC;AB' A =i# $ -' M) ';+,'
0 ? 4 i8#?C=' 8 ;"'?i'#B ' ' #>4@'; =A'@ ;L 1. / *0&'
=' @# 7 < ' D>'#B '%?C=' =' #B '8 # ' # < ' #?' 0; 1 =
D '; i@= 4 =' #B 'i ' 8= ' K; ' = ' L
@ ;:= '#?'; <? 'i;?<'B '?ii@ 4 =' ; K @#?i'< 89'
;i # ?=' @?<< ## 'D>'B <'#B ; =4' ; 4' = 'B '
B?E '#?'i ' = ' =iE ;' A =i#%BC; >' ?< ' 7
AB#' >

% &' ; CAB#'?i' =' @#'i?;' =@?C; A =A'%; 4t d @#'+*
; ' = '; < ## '#?'#B ' ?<< ## '?i'%; p -+ * O 8
+25-0

/&%*%* ' i?;'#B '& ;8 '?i' i 8 4 @; =A'#B ' M1 *',+,'
0?;' A i# ';' < >'D '?; = '#?'A '?C#' =' FL) , > 0
#;' @#'?i' =' @#'?i'/ ;8 < =#4 ?# ' = ' KK;?' ='
='#B '8 i# (i ?='?i'/ ;8 < =#4 = =#'#B ' '8 9'
; '?i' ;; @"4 ; 4 ='#B ' ?@ #' 0?#B =4 ?;'#B #'
KK?>=# '#?'i ' = '=iE ;'i?;'#B '1 =A ' =# ; i#

% &' ; CAB#'?i' =' @#' = =#O = '8> =A';C=; A4' =#
; 4 = '?; ; '#?'8>'?=';#B '% D8 ' 7

8 ?#B ;' Ci 'D i?; '#B '/ ;8 < =#4 '#B >'8B 88
#B ='"i ##

/&%*%* '#B ' #>'?i'& =DC;AB' A =i# $ -' M) ';+,'
0 2 88 <' + @"4 E #B'#B ' ; K?;'# i;?<'#B ; ?<< #;'7' 1. / *0&'
'i?;' (@C; #>'?i'#B ' ?<< #L 0; 1
D '; i@= 4 =' #B 'i ' 8= ' K; ' = ' L
@ ;:= '#?'; <? 'i;?<'B '?ii@ 4 =' ; K @#?i'< 89'
;i # ?=' @?<< ## 'D>'B <'#B ; =4' ; 4' = 'B '
B?E '#?'i ' = ' =iE ;' A =i#%BC; >' ?< ' 7
AB#' >

% &' ; CAB#'?i' =' @#' i?;' =@?C; A =A'%; 4t d @#'+*
; ' = '; < ## '#?'#B ' ?<< ## '?i'%; p -+ * O 8
+25-0

/&%*%* ' i?;'#B '& ;8 '?i' i 8 4 @; =A'#B ' M1 *',+,'
0?;' A i# ';' < >'D '?; = '#?'A '?C#' =' FL) , > 0
#;' @#'?i' =' @#'?i'/ ;8 < =#4 ?# ' = ' KK;?' ='
='#B '8 i# (i ?='?i'/ ;8 < =#4 = =#'#B ' '8 9'
; '?i' ;; @"4 ; 4 ='#B ' ?@ #' 0?#B =4 ?;'#B #'
KK?>=# '#?'i ' = '=iE ;'i?;'#B '1 =A ' =# ; i#

% &' ; CAB#'?i' =' @#'i?;' =@?C; A =A'%; 4t d @#'+*
; ' = '; < ## '#?'#B ' ?<< ## '?i'%; p -+ * O 8
+25-0

/&%*%* ' i?;'#B '& ;8 '?i' i 8 4 @; =A'#B ' M1 *',+,'
0?;' A i# ';' < >'D '?; = '#?'A '?C#' =' FL) , > 0
#;' @#'?i' =' @#'?i'/ ;8 < =#4 ?# ' = ' KK;?' ='
='#B '8 i# (i ?='?i'/ ;8 < =#4 = =#'#B ' '8 9'
; '?i' ;; @"4 ; 4 ='#B ' ?@ #' 0?#B =4 ?;'#B #'
KK?>=# '#?'i ' = '=iE ;'i?;'#B '1 =A ' =# ; i#

% &' ; CAB#'?i' =' @#' = =#O = '8> =A';C=; A4' =#
; 4 = '?; ; '#?'8>'?=';#B '% D8 ' 7

8 ?#B ;' Ci 'D i?; '#B '/ ;8 < =#4 '#B >'8B 88
#B ='"i ##

/&%*%* '#B ' #>'?i'& =DC;AB' A =i# $ -' M) ';+,'
0 2 88 <' + @"4 E #B'#B ' ; K?;'# i;?<'#B ; ?<< #;'7' 1. / *0&'
'i?;' (@C; #>'?i'#B ' 1 =A ?<4 ; 4 ?# 4 = ' 0; 1
KK;?' = = +.0

% &' ; K?;'# i;?<'#B ' ?<< ## 'i?;' (@C; #>'?i' M%& '=+*.'
#B ' 1 =A ?<' ='i ?;' ?i'#B ' 0?; ' (#; #B= ;4 '
#B '#E?'#B?Ci ;i 'K?C= 'i# ;8='D 'K > 'B <'?C#
?i'#B '/?8 '<?= >' A =';

% &' ; CAB#'?i' =' @#'i?;' =@?C; A =A'%; 4t d @#'+*
; ' = '; < ## '#?'#B ' ?<< ## '?i'%; p -+ * O 8
+25-0

/&%*%* ' i?;'#B '& ;8 '?i' i 8 4 @; =A'#B ' M1 *',+,'
0?;' A i# ';' < >'D '?; = '#?'A '?C#' =' FL) , > 0
#;' @#'?i' =' @#'?i'/ ;8 < =#4 ?# ' = ' KK;?' ='
='#B '8 i# (i ?='?i'/ ;8 < =#4 = =#'#B ' '8 9'
; '?i' ;; @"4 ; 4 ='#B ' ?@ #' 0?#B =4 ?;'#B #'
KK?>=# '#?'i ' = '=iE ;'i?;'#B '1 =A ' =# ; i#

% &' ; CAB#'?i' =' @#' = =#O = '8> =A';C=; A4' =#
; 4 = '?; ; '#?'8>'?=';#B '% D8 ' 7

8 ?#B ;' Ci 'D i?; '#B '/ ;8 < =#4 '#B >'8B 88
#B ='"i ##

/&%*%* '#B ' #>'?i'& =DC;AB' A =i# $ -' M) ';+,'
0 2 88 <' + @"4 E #B'#B ' ; K?;'# i;?<'#B ; ?<< #;'7' 1. / *0&'
'i?;' (@C; #>'?i'#B ' 1 =A ?<4 ; 4 ?# 4 = ' 0; 1
KK;?' = = +.0

% &' ; K?;'# i;?<'#B ' ?<< ## 'i?;' (@C; #>'?i' M%& '=+*.'
#B ' 1 =A ?<' ='i ?;' ?i'#B ' 0?; ' (#; #B= ;4 '
#B '#E?'#B?Ci ;i 'K?C= 'i# ;8='D 'K > 'B <'?C#
?i'#B '/?8 '<?= >' A =';

)*(

3+

'*=;

% &' ?<#= ## ' KK?>=# '#?' < #B '!# ;L =??=' #! ' '@8? "' ||

?!' ?< !#?C=; = ' ?< !#?C=' 88?E '#?'! ' = ' =!E ;'#B ' ' @## A =!#%BC; >'= F#

% &[0?; ' /; ! =#D>'?; ;'?!'B ' L # ' ?<< ! ?= ;' ?C;= 'B ' / ;8 < =# #<'$; >'= F# #'# =' '@8?@"' ='DC'!?; =??=9

/&%*%* ||) D; 8' (<K8 4@; =A' K #9' d ||) D; ' # ?='?!' '! = ; = ' 2 ;; =#A; =# '#?'@ #' 1 =W '?!' ?! B CAB'D !?; '#B ' ?<< ## '!?;' (@C; #>'?!'#B '1 =A ?<

D I 1']9R' ')])R

/ & (' ?88'@ B
@ 7
* '%('?!'#B '8 ' (;C=#;

/&%*%* ' ?<' ; = ;'# " ='D>'#B ' (88 9' < ='C= ;'#B '1 =A'?!'$ W4 = ' # = ' '(8 ' = ' K# 4 @; =A' 2 ;; =#!?;' 'A = ; 8' ?=L #; DC# ?=' #' @B' / ;?@B' 1 ;"' #B;?CAB?C#B ' 1 =A ?<4 #?'; 8 '#B <|!;?<'#B ;' K# #>4 ; 4 = '#B ' ! ; '#B ;?!'A; =# 4 = '#B '8 !# (C= >'?!'JC8>'= F# KK?> # '9!?;'#B # !! @#

, : 6 ' ,+*' ')+ H * / + ' ,+*' +6 ' ' * * ' $. . ' '

7 0

' d O ; ?! + 6 ' 0;' / * ' & 0

% &' & ;8 ' ?!' 0 =8#BA?E4 (P' J?B=' 0 C ;' ?!' $?C=# =B 884 Q' (| 2 88 <' < 8#?='?!'2 B # 8 E4 #?'EB?<4 #'E ' ; < ## 4#?' = ?FC7 ' (#8 < =# D #C F#'#B '0 ; '?!' ?#B < >' = ' D ;= #B>'?!' > = 4; K?;# '#?'#B ' ?C 4#B #' #B ' 'K ;# '@?C8 '=?#D 'D;?CAB#'#?' =' @@?<L <? # ?=4 = ' #B #' #B ; !?; ' B ' # ' ?<L < ! ?= ;' E?8 ' De' K8 ! '#?' KK?>9=#' +> #' !?;' # ;< = =A'#B ' ' C!

(' 7 ' ?<< ! ?= ;' KK?>=# '#B ' >' AB#' > '!?;' C A =A' = ' # ;< = =A'#B ' '@ C! 1 = ' ='#B '< ='# < 4; @?<< = '#?'#B 'K ; ?='D? = <@ '#B ;'! ; ;' = ?C; '9#?' ! #8 '#B ' |'K ;# 4 = '; < ## '#?'#B <'#?' =NC ; ' =#?'#B ' C#B?; '?!' ' / ; KB =K#'@?=# = ' = #B '! ;!8 <K; ! ?='?!' ?#B < > '=!?;< # ?=4 D?# ' #B ; #?' =' ' @?= ' <K; ! ?=4 EB ; ='#B ; ' ; ' ?< ' = @ =# ,K; ! ?= 4; !8 @# =A' ?=' #B ' 9' ?@ #' !?;' D ;= #B>'Y?!' > = 4 = '#?' ; K?;# A =!#'#B ' ' >'P 0

' 8

M '&' + '> 0

% &' <?; 8'?!'#B ' 8 ! '!?;' '/?8 'D 88' A =' ; 4 Q' !# ;' ?< ' D #'#B ; ?=' A =' ; < ## ' #?'#B ' ?<< ## '!?;' (@C; #>'?!'#B '1 =A ?<'#?' !; < '#B ' 'D 88' =' =' @#4 = 'D; =A' ='#B ' < ' #?'#B 'K ;8 < =#?='%C >'= F#

, *+- , '+,' %* + ' 04 & '1 *'+,B 4 & ,+* Q- 0

% *(' >'D =A' KK?>=# '!?;'#B 'K;?@ '?!'#; 9' !?=' #'#B '1 =A' >?@ #' =!# =@ 4 A =!#'#B ' & ;8 '?!' 8!?;#4 = '?#B ; '='$; =@ 4 #B '! < ' E ' A =' @ 88 4 = '@?=# =?E '#88'#B ' >' AB#' > 4 = '#B 'E #= ! 'D =A' 8!?'@ 88 4 E ; '?;L ; '#?' ## =

M + + é ' & ' 3 -+' F * 0

&+4 #B #'#B ' ?<< ! ?='!?;' =NC ; =A' =#?' #B '(8 CAB# ;'?!'#B ')8 =@? 9< =4 < >'A ' =' =' @@?C=#?!'#B ;'K;?@ C; '#B ; =

' % &' ; CAB#?!' =' @#' =' ! ?; '?!'#B ' #>||?!

?!E # !#?' 0 & =DC;AB'!?;' D; =A =A' ='?!' E # ;' #N'#B '

') ' +,' 1. / *0&0 #>4 E #B' '@?C=# ;'/ # # ?='!?;'/ #; "'/?;#, ;! 8 ' $

4 5 -+6H 6 . + ' ' , 7+*'+,' ' +* *H .'* -'+,' 5+/ *' * h

4 2 ' & ' 6 *0 ' +,' & ' 5 -+*.' & * ' ' & ',+ +? 0' + ' '%& ' 5 -+6 6 . + ' ' , 7+*'+,' ' +* *, .'* -+*. .' K' 6+ 0 ' & ' 5 , - + ' ' & ' .'+,' & ' , + '+,' * ' ' 6 U' 9 ' & ' / ' & * ' * +* .' +' ' <*+< *' < - ' ' ' * '+,' * 6 * ' *+- . 0

=C< ;?C ! < 8> #? C= ;# " 8?=A # ?C = FK = ?C;= > !?; 0K= ?=4 EB ; B @?=# L =C @?= ; D8 # < = #8 =A#B E = @ !9 # #? @?;CK?= B ; C<N BC D = !?;! 9 #C# ! BC= ; #B K?C= (# ;8 =A EB @B D =A A = !?; #B 0?; 8!?;# C @?C8 = ;D ; @? ; 4B B =A =? # # E #B = #B 1 =A ? ' = ?= 8 ? C; =A #B # # < #B K # # ?= ; @?!8#; # ; 8 D# = ?; ; #? #B K >< =# ?! #B @?<K? # ?= = B ; ?E= = =C< ;?C ! < 8 < =# = =@ EB @B 8> ? ; B ; B > # C= # ! ;>4E 88 "=?E= #? < =>?! #B < <D ; ?! / ;8 < =# (? #B K # L # ?= ; BC<D8> @?=@ #B # B ; !?; @ = ; @C< # =@ ! 88 C= ;4 = B ?CAB# #? B #B D = ! # ?! #B # K ;# ?! #B @8 < ?! ; AB# ; =A #B # 88 !?;! #C; ! = 8?! ?! ?!! @ <K; ?=< =# D = B< =# KC; C# K ; @C# ?= #?;#C; = ; A?;?C F @# ?= D @?= ; = #B K ;# 8 D ; ;;! = #B K = 8 0 E A = # + ! =# ; ; ; @ = D =A A; ? ' D> = @# ?! D # @C;; =# / ;8 < =# %B ; !?; BC<D8> ; =A #B # B) ; @ = B?L =?C; D8 &!# # ?! / ;8 < =# E?C8 # " #B K # # ?= ; = @ ;@C< # =@ #? #B ; ; ?C ?= ; # ?=4 = ?; = #B K # # ?= ; # ; ! = C@B 2 > = == ; B < > D = D8 #? # ! B ; ?E= = B ; BC D = D# ? @?=#; @# CK?= @@?C=# ?! #B ; A?; !?; = !?; < =# = =A B ; =C< ;?C ! < 8> = ; 97 K @# ?! #B K @ 8 #> ?! #B @ = #B # B @ = B =? D = ! # D> #B A = ; 8 @# ?! ; # #C# ?= =@ #B ; = #B ; =? # # #3 D ; @B #B K # # ?= D ; 2 B @B D =A CK?= #B > = # ?! #B ; K; =# B ; = @?= ; D> B L # B AB ? K< ! ?= ; = & # # ?! / ;! 9 < =# #B > @?<< = = B ; D> @?<< = #B K # # ?= ; #? B #> K @ 8 ! ?; #? D ; ; ! = C@B < == ; = E > = B ;?> 8 2 ?< B #> B 88 #B ="! #

9 (0 +, * + .0 #

% &' ; # AB# ?! = @# + @B ;A =A #B # " =A ?! (8<?= E #B B ;;> E # ; = # 4 = ?#B ; C=8 EL !C86 =A = = #B E # ; ?! $?;#B4 ; 4 = ?;L ; #? 8> ?= #B % D8

% &' ?<< ## KK?>=# #? < # #? <?;;?E # # = @8?@"' = #B ?<< ## ?! %; #? < # # #B ! < # < # #B DD >

70 % &' 0?; / ; =# D> ?; ; ?! B L # ?<< ! ?= ; ?C;= #B / ;8 < =# # 88 %C > = F# # # = @8? "' = #B !?; L =??=

J ' &' , **%4 4+ 4,

/ & (' ?88 @ 88

* ' % (' ?! #B 8 !# (;C=# ; 6 ⫴

&+ #B # #B ?<< ! ?= !?; =NC ; =A =#? T & #B (8 CAB# ; ?! #B)8 =@? < = < > A = @@?C=# #? #B ?C N! #B ; K;?@ C; = #B < = !! ;

& / %& + !;?< #B ?<< ## !?; (@C; #> ?! #B 1 =A ?<4 #B # (CKK8> ?! (F ?= #B ! ?C# ?! #B 8 = ; =# D A = #?7 #B 1 =A #B > ;4 #B ?= B 8! #B ;?! K > D8 # 0 <D = F#4 #B ?#B ; B 8! # = 8 < ! ⫴9 [ℍ=>=# (F

% & K?;# D;?CAB# = !;?< #B ?<< ## 4 #B # > ; ; # =# ?= D 88?E #?7 D #?; ?! ?= ?! (F K ; =#4 ?! ==C B =#

+ !# ; ?< D # # E ?# 4 = @ ! 0 = ! !8 ?C8 D A; =# 4 EB #B ; #B !?; 5 ; # =# ?=9 *B?C8 D 88?E #? #B D #?; ?; =?#4ℍ = @ ; =# B #B ; #B !?; 5 = ; @?<< = #? #B 8 ?< ## #? D; =A = = @# !?; #B K?; 5 = ; @?<< = #? #B 8 ?< ## #? D; =A = = @# !?; #B (CKK8> Q ; # =# ?=4 #B = F# (;C=# ?! / ;8 < =#

% &' <?; 8 ?! #B 8 ! !?; / ?8 D 88 A8 = ; 4 = ?; ; #? 8> ?= #B % D8 4 # 88 #B = F# (;C=# ?! / ;8 < =#5 = = #B < = # < ; @?<< = #? #B ?< ## !?; (@C; #> ?! #B 1 =A ?<4 #? D; =A = = @# #B ; = =#

PRR 7-73 26 /?8 J ' J

+& &+ #B # #B <?; 8 D K; =# 4 #B # #B <D ; < > B DKK !?; #B ; D ## ; @?=! ; # ?=

% &' @# !?; @8 ; =A #B T!?;< ; 0 E < = =# #B (8 ?! ="; CK# 0 = 4 #?C@B E #B #B (@ K# ; = #B C!C 8 < == ;

%' AC8 # =A #B (8 = / >< =# ?! ="; CK# & # #

*(' J&(% E #B @ = @K= =# ?! #B &!# # ?! / ;8 < =#4 !?; #B !C;#B ; @8 ; =A = FK8 = =A ?! !?;< ; 0 E = =# #B (8 ?! ="; CK# &!# # 4 (# #C# 4 &= @# 7 = + @8 ; 4 #B # # 8B 88 D 8 E!C88 #? 88 KC;@B ! ; ?! ="L ;CK# &!# # 4 !# ; #B K @ ?! ?= > ;4 @?C=# =A !;?< #B + @; # ?! (8 4 !# ; #B # ; < ?! 2 B #9⫴

% = =# #B ' CAB# ;' ?!

&+' A =4 #B #' #B ')?<< ! ?=' !?;' =NC ; =A' =#?' #B ' !8 CAB# ;' ?!' #B ')8 =@? 9< =4 < >' A =' @@?C=#' #?' #B ' ?C ' ?!' #B ;' K;?@ C; ' =' #B ' ' !8/ ;

*(' 7 ' ?<< ! ?= ;' A= !> 4 #B #' #B ' ?<9' < ! ?=' B ' =?E' D;?CAB#' #B ' ! ' !! ;' #?' ' @?=9' @8C! ?=4 = ' '; K?;#' #B ;?!' E 'K; K ; 4 EB @B' =' @ =@>' ?CAB#' #?' D ' !? 8' ! =#' #?' #B ' 1 =A4 = ' #B #' ?=' ?= >' = F#4 ! =@ ' #B >' E ; ' !?' ;= !#4 B ' E?8 ' = ?C;' #?' 8 >' #B ' @? ;>' ?!' #B ' ! ' !! ;' D !?; ' #B ' / ;B ; =#

M^ -',+* G' + &') ,' < 0

% &' @#' !?;' (F' ?= #B ' ! ' ?C#' ?!' #B ' 0 = ' ; =#4 #?' D ' A =' #?' #B ' 1 =A4 #B ' ?= ' B 8! ' #B ;?!' K > D8 ' #' 0 <D ' = F#4 #B ' ?#B ;' B 8! ' #B ;?!' #' = 8 < ! ' = ' #B?C! = ' (F'BC= ; ' = =>=' # ' (F4 HE #B' ' > ; ' ; # =# ?=4 #?' D ' 88?E 'D>' ; L #?; ' #?' D #?; 4 ?!' ?= ' ?!' (F' K ;' =#4 ?!' =9' =C 8; =# 4 !;?<' 2 B #!C= >'8 !#' = ' #B?C! = ' (F' BC= ; ' = ' =>! #>' ! ' #?' 2 B # C= >' = ' #B?CL ! = ' (F' BC= ; ' = ' =>=#>' (F4 ; 4 = ' !# ;' ?< ' D # ' #B ; ?=' ?# 4 KK;? =4 = ' #C@B ' E #B' #B ' (@ K# ;' D>' ' 7 ' ?<< ! ?= ;4 =' #B ' C!C 8' < == ;4 = ' ?; ; ' #?' D ' KCD8 B ' = ' K; =# ' #?' <?;;?E

' %' !?;' (F' ?= #B ' (CKK8>' CK?=' #B ' 0 = ' =#

G' % &' & # # ' ?!' / ;8 < =#' # " =A' =#?' #B ;' @?=9' ' ; # ?=4 #B ' =A ; ' #B #' # '' #B; # =' #B ' 1 =AL ?<4 D>' ; !?=' ?!' #B ' @?=# =C =@ ' ?!' #B ' K; ! =#' 2 ;;4 EB @B' ! D8>' ; NC ; ' #B ' " K =A' CK' ?!' #B ' # = =A' !?;@ 4 = ' #B ' (CKK8> ' = @ ! ;>' !?;' #B ;' < =# = =@ 5 +?' #B ; !?; ' BC<D8>' = ' @B ;L !C88>' !?;' #B < 8 4 = ' =' = < ' ?!' #B ' 1 =A ?<' EB?<' #B >' ; K; =#4 < " ' ?!! ;' #?' B ' #>' ?!' ' ' (BKK8>' ?!' ! DC;' BC= ; ' #B ;#>' #E?' #B?C! = ' K?C= 4 F# = =A' #?' (F' ?= #B ' ! 5 EB @B' = E' (CKK8>' ' #?' D ' ; ! ' = ' CK8 !# ' ?C#' ?!' #B ' 0 = ' ; =#' ?!' #B ' 1 =A ?<' =' #B ' ! < ' < == ;4 = ' @?=!?;<' #?' #B ' K;?K?;# ?= 4?!' #B ' (B ; ' = ' C;AB ' @?=# = ' =' #B ' (F#' @#' ?!' #B ' (@?= ' (! ?=' ?!' #B ' @C;; =#' / ;8 < =#4 # ' #B ' (=#B' >' ?!' JC= ' = ' #B?C = ' (F' BC= ; ' = ' =>=#>' ' / ;? =A' 8E ! ' #B #' #B ' K;?K?;# ?= ' ?!' C;AB ' D ' ; # ' = ' K > ' ' #B ;' % F' ?88' =?E' 4 ?;' !8 88' D ' ! # ' D>' #B <! 8 '5 = ' #B ' (CKK8>' #?' D ' K > ' =' #E?' K ;# 4 #B ;' =!E ;9' =A' #?' #B; ' <?= #B ' ! ' ' %E?' BC= ; ' = ' (F# =' #B?C! = ' K?C= 4 ' D =A' #B ' ! ; #' B 8! ' #B ;?!4 #?' D ' K > ' D #C F#' = ' #B ' ! ;!#' >' ?!' CAC!#4 =' #B ' K; ! =#' > ;' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' ! 5 = ' #B ' ?#B ;' #E?' BC=L ; ' = ' (F# =' #B?C! = ' K?C= 4 ' #B ' ?#B ;' B 8! ' #B ; ?!4 D #C F#' = ' #B ' ! ;!#?!' !! D;C ;>' = ' #B?C! = ' (F' BC= ; ' = ' =>=# ' (F' > ; ' =

B ' [' @?= ; =A' #B #' #B ' (CKK8>' ' A; =# ' !?;' C@B' ' = @ ! ;>' C! 4 ?#B' E #B' @ ' = ' @?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' + @8 ; 4 #B #' ' =?' K ; ?=' ?;' K ; ?= ' B 88' D ' F <K# ' !;?<' K >L < =#' ?!' #B ;' K;?K?;# ?= ' ?!' #B ' (CKK8>' !?;' #B ;' 0 = 4 CK?=' =>' K; # F#' EB #!? ;4' X F@ K# =A' <?;# !> ' 0 = 4 Q' #B ' 0 = ' ?!' E< 8= 4 D L 8?=A =A' #?' #B ' 2 ??88 =' =C! @#?;>' #B ; 4 !?;9 EB @B' <?;# !> ' 0 = 4 = ' 0 = ' ?!' E< 8= 4 C@# ?=' ' #?' D ' 88?E ' =' #B ' 3C?# W ?!' #B ' ; 97' ' K @# ' (B ; ' =?#E #B!# = =A' ?!' =>' !?;< ;' 0 E4 / ; 8 A 4 ?;' @#' ?!' / ;8 < =#' =' #B ' @?=L #; ;>' ' = ' B ' #>' E #B' @ ' = ' @?=! =#' !?; 4 ?#B' =?< = #' = ' KK?>=#' #B ' ! < ' / ;L ?= 4 EB?' ; ' = < ' =' #B ' !?; ' @#' ?!' / ;8 L < =#4 EB?' ; ' 8 4 = ' B ' NC 8 !> ' #B <! 8 ' @@?; =A' #?' 0 E4 ?;' !8 88' NC 8 !>' #B <! 8 ' D 94 #C F#' = ' #B ' 8 !#' %C >' ?!' JC8>' = F#' #?' @?< 4 = ' !C@B7 ?#B ; ' ' B ' D =' ! =@ ' =?< = #' ! %' ' / ; >' ?C=@ 84 #?' D ' ?<< ! ?= ; ' !?;' ?; ; =A' = ' CK8 !# =A' #B ' (CKK8>5' E #B' #B ' ! < ' K?E ;' #?' #B <4 #?' @B? ! ' #B ;' ?E=' 8 ;"4 = ' #?' ' ?' ;>' #B =A' #B #' < >' @?=@ ;=' #B ' ' (CKK8>4 ' ' K; @; D ' = ' KK?>=# ' D>' #B ' ' @#4 B?8 L =A' #B ' < ' ' ; K # ' B ; =4 = ' W?; = ' #B ' < ' F @C# ?=' #?' K ! ' !?;' =D; =A =A' #B ;?!4 ' ' K;? ' D>' #B #' @#' =' 88' K?>=# ' = ' ?; = ' #B ' ! ; #4 < # =A' ?!' #B ' ' ?< ! ?= ; ' !?;' #B ' (B ; ' #?' D ' #' #B ' B ' C;AB ' #B ;?!' CK?=' #B ' #B ; ' %C >' ?!' JC8>' = F#4 #' # =' ?!' #B ' 8?@"4 !?;' #B ' (B ; ' ?=' #B ' ' ?!' #B ' ;' ?!' ' % >5 = ' #B ' 8 !#' %C >' ?!' JC8>' = F#' !?;' #B ' (B ; ' D ' =?;#B' % >' = ' ; NC ; ' #B ' (B ;; !! ' = ' (#C ;# 4 ?;' #B ;' + KC#' #?' =# < #' #B ' #=' #?' #B ' ?<< ! ?= ; ' ?!' #B ' ; K @# ' (B ; ' = ' (# E ;#; 4 E #B' K?E ;' #?' #B <' #?' KK?>=#' #B ;' CD NC =#' +> #' ?!' < #=A4 = ' #B ;' ?= = ; ' !;?<' # < ' #?' # < 4 = ' 88D' #?' . . %$' '' -' W E #B' C!! @ =# C# ?=' ' #B >' 9 B 88' #B ='' ! ##' = ' @?=< < ## ' #?' B ' [' / ; >' ?C=@ 84 CK?=' #B ' #B' ?;' =?# @@ K# =@ ' ?!' =>' ?!' #B ' ?<< !L ?= ; ' ?!' (CKK8>4 KK?>=# ' D>' #B ' @#' #?' =?<O' = #' = ' KK?>=#' ?#B ; ' =' #B ;' K8 @ ' = ' ' #>' E #B' @ ' = ' @?= =#' !?; 4 ? ' L @8 ; ' #B #' 88' @8 C! ' @?=# = ' =' #B ' !?;< ;' @#' ' ?!' / ;8 < =#4 = ' ?= =# ?=' ?!' &!# # 4 =' ; 8 L # ?=' #?' #B ' =D; =A =A' ?!' #B ' ! 4 = ' NC ;# ; =A4 9 = ' = =#' ;> =A' <?= >4 !# 88' !#' = ' =W !C88' !?;@ ' ' #?' #B ' (CKK8>' =?E' <K?! 4 =' #B ' ! < ' < =9W = ;4 ' !' #B >' E ; ' =! ;#' B ; =4 F@ K#' =' !?' ! ;4 ' #B ! ' @#' ?!' / ;8 < =#' ?;' ?= =# ?=4 ; ' =9' =? #' ?;' 8# ; ' D>' #B ' !?; ' (F#B' @#' ?!' #B ' (@?= ' (! ?=' ?!' #B ' @C;; =#' / ;8 < =#' = ' #' ' B ; D>' @8 ; 4 #B #' =?' K ; ?= '8> D8 ' =' K >L < =#' ?!' #B ' (CKK8>4 B 88' D ' B?8 =' #?' K;? C@ ' #B ;' !@B ;A ' ?;' ; @ K#' ?!' #B ' < 4 !# ;' #B; ' > ; ' !;?<' #B ' ; K @# ' # ;< ' ?!' K >< =#4 C=8 ! ' 8 A =@ ' D ' ?= ' D>' + =C=@ # ?=' D !?; ' 8 K! =A' ?!' #B ' ! ' #B; ' > ; ' = ' D @ C! ' D>' #B ' (CKL K8>' B ; D>' A; =# 4 #B ' 0 = ; =#' = ' C;AB ' ?!

(B 88 =A9
%B ' (B ;; ii ?<' ?i' 1?FDC;AB4#B ' (?C< ' ?i' %B; '
ii ?Ci = ' (F' BC= ; ' = ' AB#>' (F' K?C= 4'
(=# =*B 88 =A' (F'K ==
%B ' , , + ' ?i' (8" ;"' #B ' (?C< ' ?i' =>= '
BC= ; ' = 'i?C;' K?C= 4 =>= ' B 88 =A' 0
%B ' (B ;; ii ?<' ?i' / D8 4 #B ' (?C< ' ?i' = '
#B?Ci = ' = 'i?C;#>' #E?' K?C= 4 AB#' *B 88 =A'
%B ' (B ;; ii ?<' ?i' 0 = ;"4 #B ' (?C< ' ?i' %B; '
; # =# ?=' =' B ' ?E=' B = ' ?i' ?= ' ?i' (F' ?i' #B '
' ==C J; =# 4 = ' #B ' ; # =# ?=' #? D ' i?'; #B '
'EB?8 '> ;4 9 ' i;?<' 2 B # C= >' = ' #B?C = '
(F9BC= ; ' = '=>=#>' i ' #? 2 B # C= >' =?
#B?Ci = ' (F' BC= ; ' = '=>=#>' (F' > ; ' = '
' B ; D>' + @8 ; 4 #B # #' i8 88 D ' ' iC;>' i?;'
=>' ; #?;44=?# #?' A; =# #B ' ' 1 # =# ?=
$ 00 2 &('#B '3C?# '?i'#B '(CKK8>4' K >L
D8 ' <?= #B8>4 D>' #B ' ; 8 (B ; ' ?i'#B '
1 =A ?<' 7 '
%B '(B ; ii ?<' ?i'& =DC;AB4 #B '(?C< '?i'#B;' '
#B?C = 4 ?= 'BC= ; ' = ' &AB# ' #B; ' K?C= 4
AB#*B 88 =A'(@?# '<?= >4 <?= #B8>
%B '(B ;; ii ?<' ?i' =A#?C=4 #B ' (?C< ' ?i'
%E?' #B =i = ' (=' BC= ; ' = ' AB#>' #E?'
K?C= ' (F' i8 88 =A
%B ' (B ;; ii ?<' ?i' ;E @"4 #B ' ?C< ' ?i' %E?'
#B?Ci = ' (AB#'BC= ; ' = ' ;# =' K?C= 4 ?='
%B ' (B ;; i ?<' ?i' 0 =8 #BA?E4 #B ' ?C< ' ?i' = '
#B?C = ' =' BC= ; 4 = ' (F#>' =>= ' K?C= 4
i i# =' i8 88 =A
%B ' (B ;; ii ?<' ?i' $?;i ;4 #B ' (?C< ' ?i' %B; '
'#B?Ci = 4 #E?' BC= ; ' = ' i =#>'#B; ' K?C= '
AB# =' i8 88 =A
%B ' (B ;; i ?<' ?i' /' ;#B4 #B ' (?C< ' ?i' i '#B?CL
i = '?= 'BC= ; ' = 'i i#>'K?C= 4'i?C;' B 88 =A
%B '(B ;; ii ?<' ?i' (C#B ;8 = 4#B '(?C< '?i'%B; '
BC= ; 4 = '#B ;#>' i F'K?C=
%B ' (B ;; ii ?<' ?i' #B= i 4 #B ' (?C< ' ?i' ii '
BC= ; 4 = '=>=#>' =>= 'K?C= 4 i '8 88 =A
'%B '(B ;; ii ?<'?i'&8A =4 #B ' (?C< '?i' = '#B?C9'
08 = 4 = ' i i#>' =>= 'K?C= 4 i ' B 88 =A
%B '(B ;; ii ?<' ?i' ;"= >' = 'p #8 = '#B 'i?C< '
?i' = '#B?Ci = 'Q AB#>' AB#'K?C= '# =' iB 88 =A
= ' #B '(B ;; ii ?<' ?i' 8 @"< == =4'#B ' i?C< '
?i'#B; 'BC= ; ' = ' i i#>' #E?' K?C= 4 (=' iB 8L
8 =A4' = '#B; 'K == '(@?#' <?= >
$ 00 2 &('#B '3C?# '?i'#B '(CKK8>4' K >L
D8 ' <?= #B8>' D>' #B ' ; 8 C;AB ' ?i' #B '
P1 =A ?<'
%B ' #>' ?i'& =DC;AB4 #B '(?C< '?i'#B; '#B?CL
i = ' AB#' BC= ; ' = ' AB#>' K?C= ' (@?# 4
<?= #B8>
%B ' C;AB'?i' / ;#B4 #B '(?C< '?i' #B; 'BC= ; '
Q (F#>'K?C=
%B ' C;AB'?i' +C= 4 #B 'i?C< '?i'i 'BC= ; '
Q (F#>'K?C=
%B ' #>'?i' D ; =4 #B '(?C< '?ii(=' BC=L
; ' = '#E =#>' (F K?C=
%B '(B ;; ii ?<' ?i' $ i ' = ' 1 =;?i 4 #B 9(?C< '
?i' ii 'B?Ci = ' ?= ' BC= ; 4 = ' (=#>' #E '
K?C=

$?;'#B ' (B ; ' ?i' ?FDC;AB'

%B ' & ;8 ' ?i' ?FDC;AB4 7#B ' 0 ; ' ?i' 88'
>?C=A ;4 #B ' 0 ; ' ?i' =A ;#?C=4 #B ' 0 ; ' ?i'
??=9 DC;AB4 #B ' 0 ; ' ?i' % <K = =4 J?B='
(@?# ?i' 2 < 47 2 88 <' %C;=DC88 ?i' 0 =A; E4
2 8# ;' ;=@;?i ' ?i' ' 8 8?K4 J < ' 0 #BA?E' ?i'
+; A; = '>?C=A ;4 ?D ;'# + ?=' ?i' ?E= <'
= ; E' ?C=A' ?i' F= <i 4 ?D ;'# + ?='
?i' ;@B@8 CAB4 ' ;@B D 8 ' +?CA8 'D;?#B ;'#?'
;4) ?='&88 ?#?i' ?;#B9(>=#?C=4 2 88 <'
(@?#?i' C;=B

' $?;'#B ' (B ; ' ?i' (8'' ;''

%B '& ;8 ' ?i' ?FDC;AB4 $; =@ 4(@?#?i' 8A 8 4
2 '8 FK &88 ?# ?i' ?;#BE @"D; 4) ?;A ' C;;?;'
i' i#E?? DC;=4 2 8 <' A 8 >' ?i' ;#E?? 9'
<>; 4#B '0 ; ' ?i') 8 '>?C=A ;'#B ' 8 i# 88 '
?i' (8'' ;'' i?;'#B '# < 4 'J?B=' C;; >' (B ;; ii'
+ KC# ?i' (8'' ;'' 4;

$?;'#B ' (B ; ' ?i' / D8 3

<' C;; >' ?i' ; ?=4 8 F = ;' ?=# #B' ?i'
B KK 'B '4 8 F = ;' #@B' >?C=A ;' ?i')8 =4
2 88 <' C;= #?i' ;= 4 J?B='0 E'?i' #B ;C;

[$?;'#B ' (B ; ' i'0 = ;'' 7
3

%B '& ;8 ' ?i' 2 A#?C=4#B '& ;8 '?i'(8'' ;''4 J < '
;' ?i' ;< @B 84 #B '0 ; ' ?i' 0 4 (' 2 8L
8 <' < 8#?=' ?i' 2 B # 8 E' ?= ' ?i' #B ' (= #?;'
I' #B ' ?B A ' ?i' JCi# @ 4 (' 2 88 <' (#C TF' ?i
& ;8 ?i' =A#?C= ' B <D ;8 =

' ' ' ' '*=;'

i#8 < 8''4 J?B=' 8 ' ?i' 2 8i#?C=4 J?B=' (?< ;9'
8' ?i')8 i# = 4 88 =' O?@''B ;'# >?C=A ;' ?i'
8 AB?<4) E =' ## 8#?=?i' KK8?@B4#B '0 ; '
?i' 8 @''E?? >?C=A ;'4#B '0 ; ' ?i'$;<'>?C=A ;'4
#B '0 ; ' ?i'(B 88B ' 4 2 88 <'(?< ; 8'?i' ?; 9'
B?Ci 4 ' ;@B D 8 ' < 8#?=' ?i' + 8 ;ii 4 #B '
9O ; ' ?i' C=''8 = 4 #B '0 ; ' ?i' ? A 4' J?B='
< 8#?=' ?i' ' i#?C=4 J < ' = ; ?=' ?i' (#?D9
@?;i 4 #B '0 ; ' ?i' C8#= i '>?C=A ;'4 J?B=' 2 ;9'
;?K' ?i'||+;C< < <?@''4 #B '0 ; ' ?i' C8 8>'4
#B '0 ; ' ?i' ; B?8<

$?;'#B ' (B ; ' ?i' 2 A#?C='

J < ' & ;8 ' ?i') 88?E >4 2 88 <'(#C ;'#>?C=A ;'
?i' 888 '(# E ;'#4' / #;'' H+?EA 8' ?i' C8A;?#4
J?B='+ 8;><K8 ' ?='?'#B ' # ;' ?i'(# ;

$?;'#B ' (B ; ' ?i' ;

%B ' & ;8 ' ?i' 0?C ?=4 #B ' 0?; ' 1 == >4 #B '
0?; ' ;A =>' ' 2 88 <' ?@B; =' ?i' 1 8< ;?9'
=?@''4 #B '0 ; ' ?i' 0 =A B E'>?C=A ;'4 #B '0 ; '4
?i' +C=8?K4 #B '0 ; ' ?i' 8i#?C=4 (' ;@B D 8 '
C; ' ?i' %B?;=#?C=4 J < ' ; C1C; '?i' E ;''4
%B?< ' ?> '?i'/ #@?C=4 #B '0 ; ' ?i' ; C1C; 9'
8 = '>?C=A ;49' ' 8 F = ;' ; C1C; '?i' $;AC 9'
B 884 J?B=' ; C1C; '>?C=A ;'#B ;'i4J < ' ?@B; ='
?i' >= B 88' ='?i' ?='';' =A4 2 8L
8 <' =AB <'?i' 8 => ; 47 J?B=' + 8;><K8 '
?= ' #?' #B ' i# ;' ?i' (# ;'4 (' J?B=' ?@B; =' ?i'
@B 8#; 4 J?B=' ?@B; ='?i' 2 # ; '

```
                                    $?;'#B ' (B ; ' ?!' $ !!
%B ' O?; '    # ;'# #B '    # ;' ?!'%  # ;'# #B ' O  ; '
?!'OC=  '(W  8 F =  ;'  ;C@ ' ?!'  ;??<B 8#'   W
  8 F =  ;'  =!#';C#B ;' ?!'    E ;"'# #B ' O  ; ' ?!'
+C; '  W J?B='  /; !#?C=' ?!' +;C<; E'# %B?<  '
    #?=' ?!'% ;  #'# #B ' O  ; ' ?!'  C; ?@ ;'= '
  W ) 8# >?C=A ;' ?!'   =" ' ?;'# #B ' O  ; ' ?!' 1 ;"9'#
= ! '  #B ' O  ; ' ?!' +?ED 8#'#  W  ?D ;'#'    #?='
?!'  ;  A!?2  ' >?C=A ;'# #B ' O  ; ' ?!'    =?@B W
>?C=A ;'# #B ' O  ; ' ?!' + =D? A'#  W +  '    (@;><9'
W ?C;' ?!' 1 ;"<?; '0J?B=' +  < K # ;' >?C=A ;' ?!W
/ #8  ;'#  2  < ' ?!'  ?A ' >?C=A ;' #B 9
O >7 ' ?!'    = ?= ' J?B='  8 8' ?!'  ; " ; ?' #B 9
O  ; ' ?!'  8@ =NC 8'>?C=A ;'#  W J?B='  #@B 8' ?!W
   8D  ;  '#' '  OC=  ' ?!'  8  !# ; ' ) ?;A 9
  ?=@;  8! ' ?!' ( C@B?'K ' J?B='  >' ?!'  CAB#?C='
>?C=A ;'# 2  8# ;' ?!E 8' ?!'  8D ;#? C='#  8 F =  ;'
(E =#?C=' ?!' (#; #B?; 4T J <  '     FE 8' ?!'O  "  9'
D ="' J <  '  8 88 = ' ?!' / ## ==
```

```
                                    $?;'#B ' (B ; ' ?!' $?;!  ;
%B ' O  ; ' ?!' O!?AA ' >?C=A ;'# #B ' O  ; ' ?!' ( #; @"9'
 #B;?'# #B ' O  ; ' ?!' (<    B ' ' >?C=A ;'# #B ' O  ; W
?!'  ?! A' >?C=A ;'#  P J <  ' O> 8' ?!'  8B 88
```

```
                                    $?;'#B ' (B ; ' ?!' $?;!1 ='' ;  =
J?B='  ;DC#B;  # ?!' $?;  ?C=A ;'# ) ?;A '  ' ; A ' ?!
#B # 8''#  W J <  ' 1  #B' ?!'  C@B?; '''  (B ;; !!
+ KC# ?!' 1 =@ ;  =# 2  '  <' $?;D  >?C=A ;' ?!W
  ?= <C '''  8 FP  W?!' ?!' % 88  = CAB#'#  +  .
  8 8' ?!' / #A ;  ' 2 88  <' (#; C@B =' ?!' (#; #B
                                                  @@
```

```
                                    $?;'#B ' (# E ;#; ' ?!'    ;"C D; AB#
J <  ' & ;8 ' ?!' ) 88?E >'4 O?; '  W' '    < 8#?=4'
/ #; '''    ;'?=' ?!' 1 :'N@B#; ' J?B=     @'' ' ?!'
/ 8A?C=' 8 F =  ;'  @'' ' >?C=A ;' ?!' / 8A? =
          @ C8?@B' ?!'  ;B?8<' 2 88  <'  C; 9
#C#?;' ?!'  ! =@ ;; ' 2 88  <' ) ?; ?=' ?!' (''  ;9
 ; ? ; ' ?D ;'# ) ?; ?=' ?!' ) ; ' ' J <  ' ) ?; ?='
?!' O ;A<?;'#  ?D ;'# ) ?; ?=' ?!'  ; ' 2 88  <'
0   FE 8' >?C=A ;' ?!'  E8 = ' ?  ?;'#  7O ' ='
?!'  ;< A 8 <  ' B ;8  W O 88 =' ?!'  ?88 '#  =L
  ; E'  ?;  ;' ?!'  8< A ='  '  ) ;  ;' ?!' + 8!@ ;#B
```

```
  ' $?;'#B ' (B ; '  ' (C#B ;8 = '
) ?;A '  ?=;'? ?!' C8;  ='  $  -  WOK? ' ?!'  #9'
D?88' +  '  ?! ;?!'*=C ;@B !8>' =  ' +  ' (C#B ;L
8 = ' >?C=A ;' ?!' 1 = 8
```

```
                                    $?;'#B ' (B ; ' ?!'  #B= ! '
 8 F =  ;' ( =@8 ;' ?!' . D!# ;' W J?B='  <KD 88
?< < !  ;' ?!'    #B= ! ' J <  '  C;; ;' ?!'  8  ;9'
?='  W 2 88 <  '  8  88 ?!9 ) 8 B! 8 ' + =  88
 C A ' ?!'%?!# =A ' ' 2 88  <' (C#B ;8 = ' ?!' )  ! '
J?B=' ( =@8 ;' ?!'$?;! ' +?= 8 ' 2 88  < ?='?!'  =9'
  = " .''' / #; '''  C;; ;' ?!' / ==>8 =  '  ) ?;A ' ( =9
W@8 ;' ?!'  ;;?@B' +  ' ( =@8 ;' ?!'$; !E "
                                                  7
                                    $?;'#B ' (B ; T?!'  ?!
%B ' O  ; ' 9?!' )  ;8?@B' J?B='  W 1 =W ' ?!'  ?E8
>?C=A ;'  ?8 =' @1 =W TC=''8 ' #?' #B ' O  ; ' ?!'
 )  ;8?@B'  P ( <?='  H1 =W ' ?!'  88 = ' )  ?;A
```

' ' '*=;' '

$%& 'B =A'?!'#B ' ' K?;#4' #' E ' ?# 4' = ;# '[@?=#; @ =# 4' #B #' B ' 7 '*B!#;C@# ?= '?!' #B ' 8 =#B' Q' F# =#B' > '?!' J =C ;>' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' #E?4' #?C@B =A' #B ' AB8 = ' D ' 4' EB?' ' =?#' @@ K#' =' C ' # < ' ?!0#B ' D = ! #' ?!' B ' = <= #>4' '@?=# =' 'E ;; =#' !?;' < ;@>4' #?' 88' E #B?C#' F@ K# ?=4' EB?' *BKC8 ' ?! / ;' #?' # " ' #B ' ? #B' ?!' ' A =@ 4' = ' @?< ' =' CK?=' < ;@>4' #B?CAB' #B ' ! ;!#' >' ?!' J =9' C ;' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' #E?' K; ! D@#' D>' #B ' / ;?@8 < # ?=' ?!' = <= #>' E ' K !#4' = '#B #' #B ; !?; 4' #B ! ' =!8;C@# ?= ' @?=# = '=?' E ;; = ' !?;' #B ' F @C# ?=' ?!' #B ')8 =@? ' < =4' < ' =' $ D;C ;>'*B ; !# ;

% & '#B 'NC !# ?=' # # ' = ' ?# 4' !' #B '&F L @C# ?=' Q' (8 CAB# ;' ?!' #B ')8 =@? ' < =' =' $ DL ;C ;>' = '#B?C = ' (F' BC= ; 'Q' =>=#>' #E?4' ' #' '; K; ! =# '#?' #B ' / ;8 < =#4' D T ' <C; ;' ?; =?#4' = ' ; ' =' #B ' !! ;< # 00

$*'' #B #' =@ ' #B ' / ;B < =#' B ' !?C= ' #' ' <C# ;4' #B #' #' < >' D ' =NC ; ' =#?4' EB?' E ; ' #B '?@@ ! ?=' ?!' #4' = '#B 'K ; ?= 'AC 8#>' = '@?<9' '< ## ; '?!' #4' = 'EB #'E >' = '< == ;'#B >'!B?C8 ' D ' K;?! @C# 4' = ' !# ;' ?< ' D # ' #B ; ?=4' #B ' < #B? ' ?!' #B '' ' K;?! @C# ?=' 8 > 4' = ' ; 9' !?8 ' #B #' #B ' ?C! ' E 88' A =' # " ' #B ' ! < ' C= ;' #B !' ?=8 ; # ?=' ! Y!#' ^=' 2 = >'= , #Z = '#B '- !# ;' ?!' (# ; ' 0 ## ; ' ; ; '#?' D 'KC#' =' #B ' 8 ;" ' B = 4' = ' =>9' ?!' #B ' < <D ; ' 8L 8?E ' = K @# ?=' #B ;?!

M1 *',' Qh?#B(' # &'1 *',' =+ & 8'

% &' C! ' W?!' 9K; @ =@>4' #' #B ' & ;8 ' ?!' A =!#' #B '& #8 '?!' 0?#B =4' @?=# =C ' # 88' 2 9' = >'= F#

% &' ?<< ## ' KK?>=# '#?' < #' #?' <?;;?E' #' = = ' '@8?@"' =' #B ' !?; =??=

% &'0?; ' / ; ! =#' D>' ?; ;' ?!' B (' 7 ' ?<< ! ?= ;' ?C;= ' #B ' / ;8 < =#' # '' 2 = >'= F#' #' # =' '@8?@"' =' #B ' !?; L =??=' [0

D I 1' ^^Q% ' "#

/ , & (' W' ?88 '@ 88 7

d& ;8' ?! (C#B ;8 = -^48,-5

*('' # ' ?<< ! ?= ;' F@C! ' #B ' D! =@ '?!' #B '& ;8 '?!' (C#B ;8 = 0 n * ' %('?!'#B '8 !# (;C=#' ;

R 7-73'31-' ' #B ? ' < =' [

% &' =NC ;>' =#?' #B 9' / ; ?= 4' EB?' E ; '#B '?@9 ?!' #B ' (8 CAB# ;' ?!' #B ')8 =@? ' < =4' E A =' K;?K?= 4' = ' <? 4' #B #' D !?; ' =>

' ' (& *) ' 0 +' # " =A4' =#?' B ' ?= ; # ?=4' #B #' D>' =' @#' K !#' =' #B 'K; =#' / ;8 < =#4' *=# #C8 ' @#9' !?;' =@?C; A =A' ?!' !!?;; A=' %; 5' ' 7;' !?;' - ' <K;? < =#7' #B ; ?!' ' E #B' @ ' = '@?= =#' ?!' #B '&!# # ' K!' / ;8 < =#4' (# #C# ' = ' + @8 ; 4' #B #' ;L @B =# 4' <?; '?;' ! E ;' < >' @?=#; @#' = ' =# ;' =#?' C@B' (?@ # ' = ' ?<K = ' !?;' @ ;;> =A' ?=' ?!' %; 4' '#?' =>' CD @#' ?!' A?? ' ?;' < ;@B = ! 4' #?' EB # ?< ;' 1 =A ?< 4' ?C=#; 4' ?;' K ;# ' ?!' #B ' 2 ?;8 4' =?#' D =A' =' H2+' E #B' B ' m' EB ; '#; ' ' =' C! ' #?' D 4' ?;' < >' D '!?88?E 4' = 'K ;# @C8 ;8>4' D ! ' #B ' 1 =A ?< ' = ' ?C=9 0'

!C;#B ;' K;?@ C; ' =' #B #9' !! ;4' %B ; ' < >' D ' =' ; ! ' ! =#' #?' B ' [;4' ?=' EB #' ' 8; >' K !#4' = ' !# #' ?< ' D # '#B ; ?=4' #B 'NC !# ?=' !# # 4' K;?@ '!C;#B ;' =' #B ' =NC ;>4' D !?; ' ; ! =A' #?' B ' #>4' ?;' ; ! ' CK?=' EB #' ' 8; >' K !#4' E #B?C#' =>' !C;#B ;' K;?@ C; 4' = ' ; ' K;?@ '!C; ;4' D !?; ' ; !

% & $%& '#B 'NC !# ?=' !# # ' = ' ?# 4' !' #B >' !# ?C8 '! ;!#' K;?@ '#?' @?=! ;' #B ' # ;' ?!' (# ; '0 ## ; 4' ?;' #B ' @#?; ' ?!' #B ' <C; ;' ?!' #B ')8 =@? ' < =5' = ' ; 4' ! ;!#' #?' @?=! ;' #B ' !# ;' ?!' (# ; ' 0 ## ;

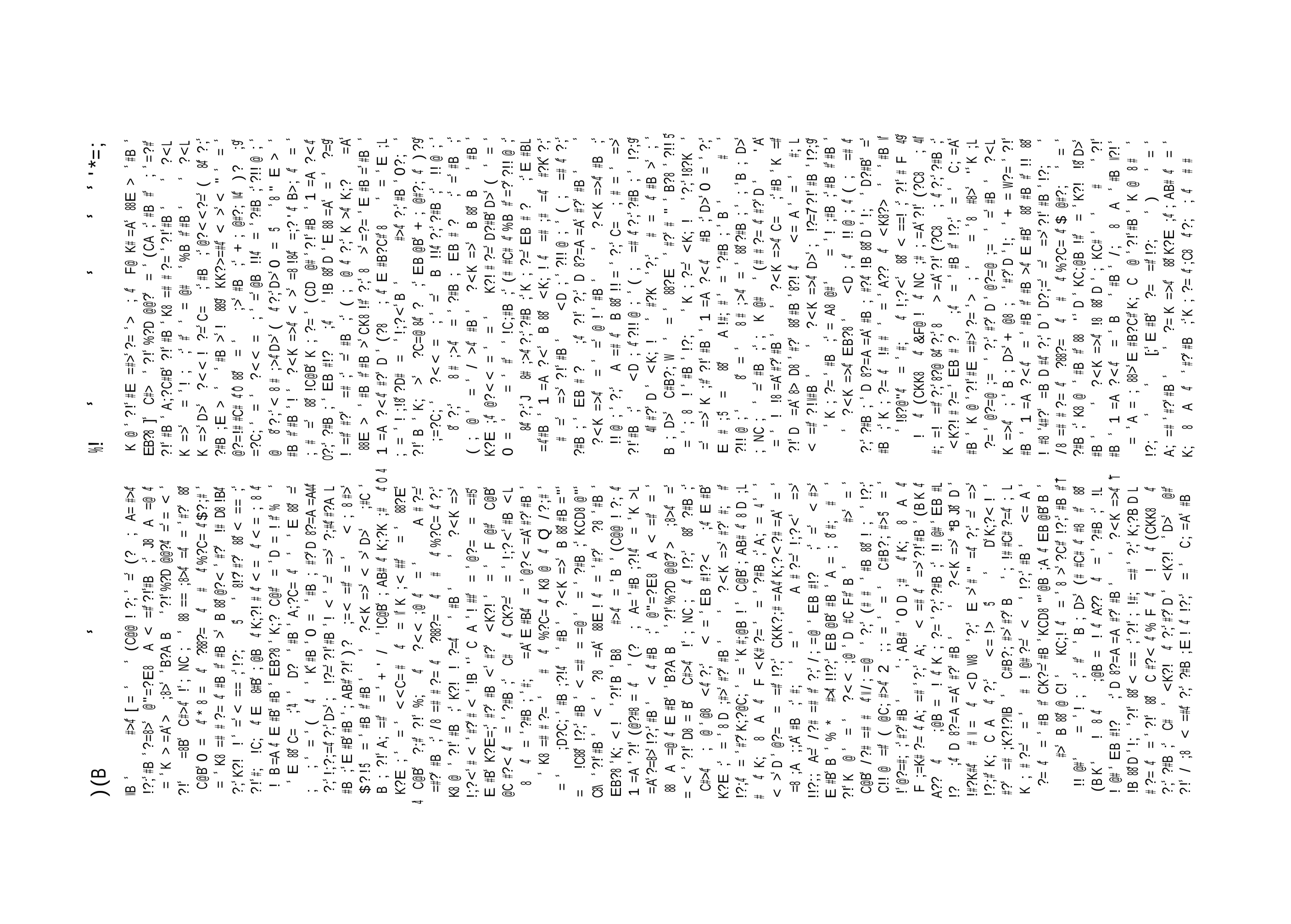
% & '#B ' # ;' ?!' (# ; ' 0 ## ; 4' E #B' #B ' 1 =A '*=!#;C@# ?= '#?' (W %B?< ' 0 =A!#?C=4' = ' ? ?= 88' 884' = '#B '!?C;#B' ;# @8 '?!'#B 'K = ?=' ?!'#B ' ?<< ! ?=4' ; 8 # =A'#?'#B ' !# ;' ?!' (# ;4' 0 E ; ' ; 4' = ' !# ;' ?< ' D # 4' #B 'NC !# ?=' 9E ' !# # 4' EB #B ;'#B ' !# ;' ?!' (# ; ' 0 ## ; ' ?' FL @ '#B ' 1 =A ' *=!#;C # ?= 4' #?E ; '#B ' " 88 =A' = ' !#;C@# ?=' ?!' #B ')8 =@? ' < =4' ?;' =?#4' = 7' @ ;> ' =' #B ' !! ;< #

% &' @#' = =#' #B ' /?8 4' D;?CAB#' =9!;?<' #B ' K @# = =# ?<< ## 4'!?;' ! C; #>' ?!' #B '1 =A ?<4' ; 4' = ' ?; ; '#?' D 'D;?CAB#' ! ;!#' =' #?' <?;;?E4' = '#B ' @ C! ' ?!' K; @ =@>' #'#B '9 =!# =@ ' ?!' #B ' & ;8 ' ?!' ?FDC;AB4' =A#?C=4' = ') 88?E >' A =!# #B '& ;8 ' ?!' 0?#B =4' I ;! ; ' #?' D ' = F#' B ; 4' #B #'#B ; !# ;' #B ' / ;8 < =#' K;?@ ' A =!#'#B ' 243"+,' K!'#B ' C; ;' ?!'#B ')8 =@? ' < =

% &' 0 !#' ?!'#B 'K ; ?= '= < '#?' D ' =! ;#' ='#B ' @#' !?;' = K ' ; A =A' ' ?<K =>' ?!' ,/$' %; 4' D;?CAB#' =' !;?<' #B ' ?< ## ' ?!' %; 4' ; 4W' ?# 4' = ' KK;? =5' (@ ?; ; ' #B #' #B ' = < ' D ' =! ;#' =' #B ' ' @#4' EB @B' #B ; !# ;' E ' #C@B ' [E #B' #B ' (@ K# ;' D>' B ' [' ?< !9' ?= ;' =' #B 'C!C 8' < == ;

%' !?;' ' ?<K =>' %; =A' #?' !!; @ ' = '#B '*=

=>(, , , ,'*=;',



:,$/ʻ ʻ#; ʻ B 88 K >7(F !B ' =A =#?; 4 < " =A =ʻ #B ʻ B 88 #E 8 ʻ *B 88 =A !?;9 ;> C@B ?## ;

% %ʻ !?;ʻ B @B (; =# B 88 D ʻ K > ʻ D>ʻ #B ʻ # ;47 !?;ʻ EB @B #B ʻ # ;ʻ ʻ <K?E ; ʻ #?ʻ ; L # =ʻ #B ʻ !?C;# #B K ;# ?!ʻ B ʻ > ;8>ʻ ! 4 EB ;?!ʻ D?C=# #B #?ʻ D ʻ ; @"?= ʻ ʻK ;# X F@ K# =A 8 ;>ʻ 8? #B ~ =ʻ #B ʻ =C<D ;ʻ ?!ʻ EB @B (; =# ʻ ; ʻ C= !!#?? 4 88 EB?ʻ ; @ ʻ E A ʻ ?;ʻ D?C=# #B9 !?;ʻ =>ʻ E?;"ʻ ?;ʻ <K8?><=# EB # ? ;4 !?;ʻ #B ʻ # ;<ʻ ?;ʻ #B ʻ > ;4 9#B >ʻ B 44 ?;ʻ !B ʻ ! ; 4 = ʻ =ʻ @ ! ʻ #B >ʻ D ʻ =?# 8 < =# ʻ =ʻ ! < 8 ʻ E #B #B ;ʻ # ; 4 #B =ʻ !ʻ #B >ʻ D ʻ =?# D? ʻ #B ʻ A; ʻ ?!ʻ ʻ ?## ;ʻ ?;ʻ B>= 4 #B >ʻ ; ʻ #?ʻ B ʻ #E?ʻ #B ; ʻ K ;#4 ?!ʻ E A ʻ = ʻ D?C=# #B4 ?;ʻ !ʻ D? 9 #B ʻ ʻ L A; ʻ ?= ʻ #B ; ʻ K ;# ?!ʻ E A ʻ = ʻ D?C=# #B4 ! ; # C@ ʻ D;ʻ #B ;ʻ 8 < =#

% %7ʻ 88 (< =ʻ K >ʻ #ET 8 ʻ (B 88 =A (@?# ʻ =ʻ = < ʻ . ʻ /?8

% %ʻ #B # 88 # == =# ʻ K >ʻ =ʻ = < ʻ ?!ʻ /?8 ʻ #?ʻ #B ʻ 1 =A #B ʻ BC= ; ʻ K ;# ?!ʻ #B ʻ 8C ʻ ; =# K > D8 ʻ D>ʻ #B <ʻ #?ʻ #B ʻ ## ;ʻ ?!ʻ #B ʻ 0 = 4 = ʻ KK?>=# ʻ #B ʻ # ;ʻ ?!ʻ #B ʻ A;?C= ʻ #?ʻ C## #B ʻ K;?K?;# ?= ʻ ?!ʻ #B ʻ /?8 ʻ <?=A # B ʻ # == =# 47 @L @?; =A ʻ #?ʻ 9#B ʻ ; K @# ʻ C# ʻK > D8 ʻ D>ʻ #B =;ʻ =ʻ <?= >ʻ ?;ʻ @#C 84 !! ; =A #?ʻ B ʻ 8C ʻ ; =#

% %ʻ 88 ;@B =# 4 EB #B ;ʻ (< =4 (B?KL " K ; 4 B K< =4 %; < =ʻ = ʻ ?#B ; 4 EB?! ʻ !; ʻ ##?@"ʻ = ʻ < = 4 X=?# =@8C =Aʻ E?;"< = ʻ #??88 4 B?C!8 ?8 ʻ K8 = B =A4 =?;ʻ (#?@" ʻ ?!ʻ # == =# ʻ CK?=ʻ #B ʻ !! ;< ʻ = ʻ K?! ! ?= ~ ʻ D? ʻ ! ʻ BC=L ; ʻ < ;" 4 = ʻ ?#Bʻ =?# F# = ʻ #?ʻ ! ʻ #B?C! = ʻ < ;" 4 B 88 D ʻ CD @# = ʻ 8> D8 ʻ #?ʻ #E ?\K?C= ʻ # =ʻ !8 88 =Aʻ ?!ʻ / ?8

+\ #B # 88 #B ! ʻ XB?# =@8C =Aʻ ʻ D? ~ EB?! ʻ !; ʻ##?@"ʻ = ʻ < = ʻ ʻ D? ʻ ! ʻ #B?C! = ʻ < ;" 4 = ʻ ? ʻ =?# F# = ʻ #?ʻ # =ʻ #B?C! = ʻ < ;" 4 !8 8 D ʻ CD @# #?ʻ !?C;ʻ K?C= ʻ ?!ʻ9 / ?8

% %ʻ 887 ;@B =# ʻ EB #B ;ʻ (< =4 (B?KL " K ; 4 B K< =4 %; < =ʻ = ʻ ?#B ; ʻ X=?# =L @8C =Aʻ ʻ D? ~ EB?! ʻ !; ʻ &## # ʻ = ʻ ##?@"ʻ FL # = ʻ #?4 ?;ʻ ʻ D? ʻ # =ʻ #B?C! = ʻ < ;" ʻ =ʻ E?;#Bʻ = ʻ 8C 4 !B 88 D ʻ 8> D8 ʻ #?ʻ # =ʻ K?C= ʻ ?!ʻ / ?8

% %ʻ 88) =#8 < =ʻ !?ʻ B?8 =ʻ = ʻ ; KC# 4 = ʻ ?E= =Aʻ #B <! 8 ʻ #?ʻ D ʻ C@B4 = ʻ EB?ʻ E 88 =?# ; =?C=@ ʻ =>ʻ K; # =@ ʻ #B >ʻ B ʻ #?ʻ D ʻ C@B4 = ʻ EB @Bʻ ; =C=@ # ?=ʻ ## 88 D ʻ ; @?; ʻ =ʻ #B ʻ 9ʻ ; C8 ʻ A # ;ʻ A; # 4 #B 88 D ʻ CD @# = ʻ 8> D8 ʻ #?ʻ #B; ʻ K?C= ʻ ?!ʻ K?8 ʻ <?= >4 !ʻ #B >ʻ D ʻ =?# ?#B ;9ʻ E > \ @8 ! 4 = ʻ CK?=ʻ =?#B ;ʻ ?=! ; # ?=ʻ D ʻ CD @# #?ʻ ʻA; # ;ʻ K?8 4

% %ʻ 88 ; #?; ʻ ?!ʻ #E =#>ʻ K?C= 4 = ʻ D 8?E ! !#>ʻ K?C= ʻ ?!ʻ 8C ʻ ; =#4 D ʻ CD @# = ʻ 8> D8 ʻ *B 88 =Aʻ ?!ʻ K?8 ʻ <?= >

% %ʻ 88 ; #?; ʻ ?!ʻ ! !#>ʻ K?C= 4 = ʻ D 8?E7 #E?ʻ BC= ; ʻ K?C= ʻ ?!ʻ 8C ʻ ; =# ʻ D ʻ CD @# = ʻ 8> D8 ʻ #?ʻ !?C;ʻ K?C= ʻ ?!ʻK?8 ʻ <?= >

% %ʻ 88 ; #?; ʻ ?!ʻ #E?ʻ BC= ; ʻK?C= 4 = ʻ C= ;ʻ ! ʻBC= ; ʻK?C= ʻ?!ʻ 8C ʻ ; =# D ʻ8> D8 ʻ #?ʻ =>= ʻ K?C= ʻ?!ʻK?8 ʻ <?= >

% %ʻ 88 ; #?; ʻ ?!ʻ ! ʻ BC= ; ʻ K?C= ʻ ?;ʻ D? ʻ#B ʻ < 4 = ʻ C= ;ʻ ?= ʻ#B?C! = ʻK?C= ʻ ?!ʻ 8C ʻ ; =#4 D ʻ CD @# = ʻ8> D8 ʻ#?ʻ#E 8 K?C; 4 ?!ʻK?8 ʻ <?= >4 = ʻ #B #ʻ#B >ʻ K >ʻ B 8! ʻ ʻ ;?C=ʻ!?;ʻ @Bʻ ?!ʻ#B ;ʻ < 8 ʻ B 8 ; =ʻ 8 =Aʻ =ʻ ! < 8

% %ʻ 88 ; #?; ʻ ?!ʻ ?= ʻ #B?C! = ʻ K?C= ʻ ?!ʻ 8C ʻ ; =#4 = ʻ D? ʻ #B ʻ ! < 4 = ʻ 88 1 = AB# ;;?= # 4 = ʻ 1 = AB# 4 D ʻ CD @# = ʻ 8> D8 ʻ #C #E =#>ʻ !?C;ʻ K?C= ʻ ?!ʻ K?8 ʻ <?= >4 = ʻ #B #ʻ#B >4 K >ʻ !?;ʻ @Bʻ ?!ʻ #B ;ʻ < 8 ʻ B 8 ; =ʻ =ʻ ! < 8 7 #B; ʻ K?C= ʻ 4

% %ʻ 88 0?; ʻK >ʻ !?C;# ʻK?C= ʻ?!ʻK?8 ʻ <?= >

% %ʻ 88 @?C=# ʻ K >ʻ ! !#>ʻ K?C= ʻ ?!ʻ K?8 ʻ <?= >

% %ʻ '&ʻ ;8 ʻK >ʻ (F#>ʻ K?C= ʻ?!ʻK?8 ʻ <?= >

% %ʻ 'ʻ ;NC ! ʻ K >ʻ AB#>ʻ K?C= 7?!ʻK?8 ʻ <?= >

% %ʻ 88 +C" ʻK >ʻ =ʻ BC= ; ʻK?C= ʻ?!ʻ / ?8

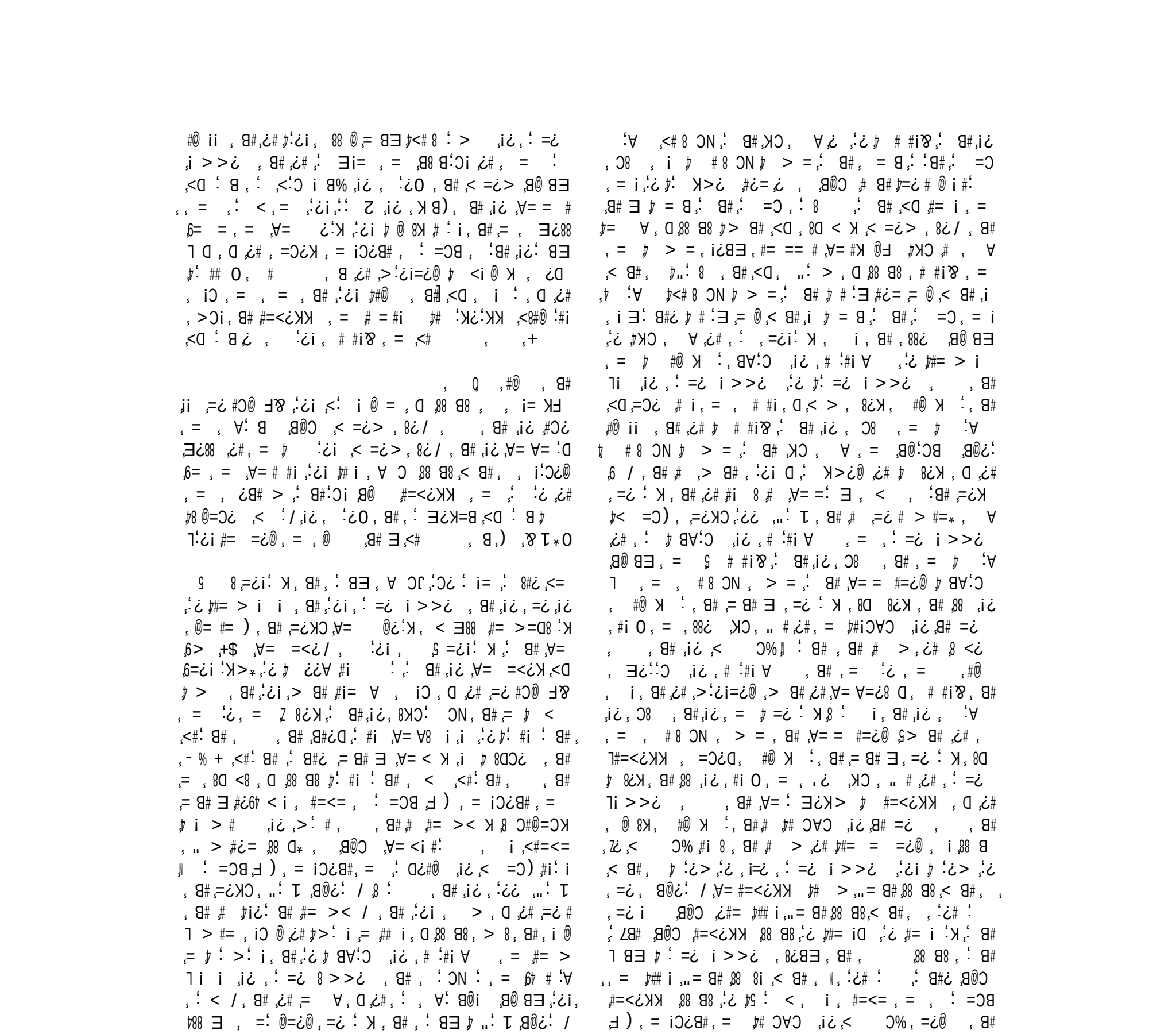
% %ʻ #B ʻ (?= ʻ ?!ʻ ?D8 < =ʻ K >ʻ @@?; =Aʻ #?ʻ #B ;ʻ ; =" 4 ʻ 88 +C" ʻ 8 !# (?= ʻ ʻ ;L NC ! 4 = ʻ #B ;ʻ >?C=A ## (?= ʻ ʻ & ;8 4 88 ;NC ! ʻ 8 !# (?= ʻ ʻ & ;8 4 = ʻ #B ;ʻ >?C=A !# (?= ʻ ʻ !@? ' =# 4 88 & ;8 ʻ 8 !# (?= ʻ ʻ !@?C=# 4 = ʻ #BA ;ʻ >?C=A !# !?= ʻ B 88 D ʻ 8> D8 ʻ =ʻ #E =#>ʻ !?C;ʻ K?C= ʻ ?!ʻ K?8 ʻ 88 !@?C=# ʻ = ʻ 0?; ʻ (?= ʻ 88; 'ʻ D ʻ8> D8 ʻ =ʻ #E =L #>ʻ !?C;ʻ K?C= ʻ ?!ʻK?8

% %ʻ 88 2 ?E ʻ EB?! ʻ BC!D = ʻ E?8 ʻ B ʻ D =ʻ 8> D8 ʻ #?ʻ ?= ʻ K?C= ʻ # =ʻ B 88 =Aʻ ?!ʻ K?8 ʻ ?;ʻ D? 4 ; ʻ #?ʻ D ʻ CD @# = ʻ8> D8 ʻ#?ʻ ʻ#B ; ʻ K ;# ?!ʻ#B ;ʻ BC!D = ʻK?8 4 F@ K# ; ! 4 EB?ʻ 8 88 D ʻ CD @# #?ʻ #B ʻ! < ʻ K?8 ʻ #B ;ʻ K; @ ! ?; ʻ E?8 ʻ B ʻD =

% %ʻ 88 ?## ; ʻ = ʻ / ;?@C; #?; ʻ D !?; ʻ *=! 9 ; ?C;ʻ ?C;# 4 = ʻ ! =A ; ʻ # ;< 4 ; ʻ #?ʻ D CD @# = ʻ 8> D8 ʻ #?ʻ !?C;ʻ K?C= ʻ ?!ʻK?8 ʻ <@< >
@

% %ʻ 88 2 ; # ; ʻ =?# #?ʻ #B ʻ (A= #4 A =# ʻ = ʻ 8 ;" ʻ ?!ʻ *=! ; ?C;ʻ 8 ?C;# 4 = ʻ @ ; ʻ = ʻ [C= ;ʻ 8 ;" ʻ ?!ʻ (! ?=4 8 88 K >ʻ (F K?C= ʻ ?!ʻ K?8 ʻ <?= >

% %ʻ 88 ?@ # 4 8 ;" ʻ ?!ʻ (? ; \A=ʻ ?C;# 4 2 ; # ; ʻ #?ʻ #B ʻ (A= #4 (B = ! \ = ʻ #B ;ʻ + KC# 4



! : K @ !> = 8!? #B 0?; ?!/ >
?C=@8 ; B ; D> !C88> <K?E ; #?@ 9 =
;< = 88 N C !#?= = !! @C8# B ; D> C=L
;< = 44#B # B > ;!! = =# #B K; < !

+ 8 #8> # B ; D> @8 ; 4 #B # =?K ; ?=
8> D8 = K >< =# ?! #B / ?8 8B 88 D B?8 =#?
K;? C@ #B ; !@B ;A 4 ?; ; @ K# ?! #B ! < Z
!# ;# #B # ;< ?! ;# < ! = #B?C! = (F
BC= ; =>=#> (F > ; 4 @?=!?;< #?@ B [Y
0 ## ; 7 7

d& ;8?! ;? 8D =- / &%*%* 4& 3 ?! ;? 8D =@; =A(/ #; "
C< = C@B?#B ! ?@ # # #B ; =@?= 9
!@ = ?=4 < > B ?; = #?@ K8 B ! =@
A =!# #B *= @#< =# ?! #; !?= # #B 1 =A L
?@ # =!# ; @ A =!# B <4 ; 4 = #B ! ;
-!?! A; =# 9

A = =# % &@ ; CAB# N! = @# !?; 3C ;# ; =A !?; #B
1 =A ; =# = ;"= > = p #8 = 4 ; 4 = !# ;
%7#, -73, %7 +S7-00 ?C N 5-/23- !B ;?=4 5-!20-5

M1 *+, 5+G/ *0& Q+ & * 0, & 1 *+, + & 0 % & C! ?! /; @ =@> # #B = =!# =@ ?! #B
& ;8 ?! ?FDC;AB4 =A#?C= =) 88?E >5
A =!# #B & ;8 ?! 0?#B =4 @ 88 4 = (/ J <
A 8 >@; =A #?@ D 88?E #?@ @?<K ;! ?;; #B
& ;8 ?! 1 88>!?; B = # ; !# = #B @ ! 4
E < ## 4 = #B @ C! @?=# =?E #88 ?=L
>= F#Z

&+ !;?<4 #B ?< < ## !?; K; # !! ;5
/ #B # =@ #B @ C! # #B =!# =@ ?! (/ J <
< > = B 0 >4 A =!# #B & ;8 =
?C=# 8 +?C A ;?! (!?;#B4 @ =?# D D;?CAB#
#? @?=@8C! ?=4 #B # #B ; !?; #B / ;8 < =#
E?8 D K8 ! #?@ A; =# #B ;! = 8 < =# ?C# ?!
#B & ;8 B &!# # 4 !?; #B = D8 =A #B <#?
K ';!C #B @# ?= #B > B A =!# #B < 4 =
!# ;? ?< D # 4 # E KC# #?@ #B ?#) ; =#
= 8 < =# ?; =?#4 = @ ;> 9 = #B !! ;< # Z
%B ; !# ;? ?# EB #B ;# #B 8 < =# *B?C8
D #B?C! = < ;" ?; ?= #B?C8 ; K?C=
> ;8>4 = @ ;> ?= #B?C = K?C= 4 @?<9
< =@ =A !;?< 2 B # C= > 8 !#4 = #?#B 8?=A !#
& ;?! #B #E?

%= ! ?C; ?! (;J < < > ?!
0?A = B 0 > A = # #B & ;8 Q
?C=# ! ?! (!?;#B

%& + * ') %B #E =#> (=#B > ?!
JC= = #B?C! = (F BC= ; = => =#> !
> ; = =# #B (CKK8 @ # ?= K; ! =# #?@
B AB ?< < ! ?= ; = &!# # ?! / ;L
8 < =# D> (/ J < < > ?! 0?A = + <

0 8 9 (#?= B 0 > < =# ?= =A %B # EB ;
D?#B #B / # # ?= ; D =A =?E4 =?# ?=8> D @?<
F#; <?8 QE "4 B?# 8!?; C@ #?@ < ! ;>
= #; # 4 E #B?C# => #B =A #?@ < =# = #B <4
0D =A = @ ! # # #?@ ! 88 #B ; EB?8 &!# # !?; K >L
< =# ?! D# 4 #B > B @?=#; @# !?; ; 8 !!
?! !; = = ; 8 # ?= 4 K ;# @C8 ;8> ?! C<NCB 8
) ?;A & ;8 ?! (!?;#B EB?! D?= #B / # L
?= ; B !?; ; <DC;! < =# = ; K >< =#
#B ;?!4 F# = =A =?E #?@ D?C# (=#> #B?C! =
< ;" EB @B 8D # # D ' #B # #B / # # ?= ;
B 8 !# #B <!?; #B ; 8 =A = CD! !# =@ =?E
= #B ; ?8 A 4 = 8!? !?; K >< =# ?! D?
#E 8 #B?C! = < ;" 4 > # ; !# =A D #B <?!
D#54 > # #B & ;8 4 #B? #4D E 88 "=?E= B
K?! ! K @ D8>4 = = ?> B $ #B ; =
); = ! #B ; &!# # 4 B C! = ?C; = = L
A = #?@ !;C!#; # = !; C #B D# =
#B ; !?; D?C# #B > ; = #B?C! = (F BC=L
; = AB#>4 #B > B ; ! #B 8 #
1 =A J < #B = +C" ?! 8D =>4 7 ?< 9
; ! @< ; #?@ #B / ;8 < =# 9#B # ! # B ; # #B #
< 4 EB?K;?< ! #?@ A ; ; ! 4 = ?; @?<L
< = #?@ #B @ ! (/) ?;A /1 =W #B =
B # ?@ #4 #?@ @ C! K "#?@ #B & ;8 =
K; =# ?<K8 =# = / ;8 < =#4 EB @B #B
& ;8 #B?CAB# ! ## #?@ K; =#4 D> K;?< ! =A #?@ # "
@?C;! E #B #B D#4 = = #B < =# < #?@ K >
= ==C #> ?! #B?C! = < ;" !?; #B 7/ # # ?= ;
> ;8> < =# = =@ ?C# ?! !?< 0 = = #B
0 E 4 EB ;?! #B?# #B & ;8 ?! ;; B % @"4
> # B 0?K ?C# ?! K #>4#?@ #B / # # ?= ; 4 K L
@ 88> #?@ #B 0 > #B D =A B =#4 @?= !@ =
#?@ #B # D ;A =4 = A D?= !?; #B # !! @#4
CK?= @?= # ?= #B # (!?;#B !B?C8 K;?;?A # B
% @"!?; B ; K >< =# > C@B K;?< ! = ! ;
!8 ## ; 4 (!?;#B #; # #B / # # ?= ; 4 C=# 88 #B #
(! ?= ?! / ;8 < =# E CK4 = B ?> 8 AB9
= ! E A?= E >Z = #B = B 0?; B K K !#
!;?< 88 K;?< ! = =A A < =# B =A ! ;!# A?#
=#?@ B ?E= B = 4 => D?= ?; ?= !@ = =@
#B # E < !?; #B # ==C #>4 2 B ;CK?= #B
/ # # ?= ; KK8> #?@ #B @C;; =# / ;8 < =#4 #B
@?= (! ?= #B ;?!5 = EB = # E CK4 #?@ #B
/ ; > ?C=@ 84 EB ; #B > E ; = @ ! # # #?E ;
#B K;? =A ?! #B #; =! @# ?= E #B (!?;#B4 #?@
@ C! # " #B @?C=# ?! % ;D # = J?B= 1 ;
?!) ?A ; #B ; ? #B Z = !# ; '4 #?@ # " #B
& ;8 ?E= ? #BZ = #B?CAB9#B & ;8 !#C >
#?@ K?= = ! = NC ?@ 8 EN! 497> # #B
?C=@ 8 !?C= A;?C= = 0 E #?@ ?; = #B & ;8
#?@ K > #B; #B?C! = < ;" K ;# ?! #B !
D>AK= ==C # 5 B?# > # #B < ## ; =?#
@?< #?@ =>! ;#B ;! C = #B ; !?; T #B / L
?= ; E ; = @ ! # # #?@ =! !# =?E4 = < "
#B KK8 @ # ?=4 D @B =A #B # B); @ = B 88
&!# # ?! / ;8 < =# < AB# @?=! ;# #B / # L
?= ; @?= # ?=4 = ?; ;? ?< K > E >
!?;# #B ;# ; 8 !! 4 ?#B ;E ! #B > <C!# = ! ="
= !# ; *# D =A <?!# @ ;# =4 #B & ;8 K; 9

!C< ' =?# ?=8>' CK?=' #B ' / # # ?= ; ' < =' = ' = A =#' &!# # 4' B?# 8!?‖CK?=' B ' ?E=' K?E ;' = ' A; # !?88?E =A4' B ' ?KC8 =# !?;#C= ' = '#B ' K8 @ ' ' 0EB ; ' #' 8> '5 #' D =A' 8<?!# <K?! D8 ' !?;' =>' < =' ?;' K; #' K ; ?=4 #?' A # @@ ! '#?' D ' &!# # ' ?;' ; @? ;' =>' K >< =#4 F@ K# D>' ?< ' F#; ?;L = ;>' ; < >4 EB @B' ' <?88' K;?K ;' !?;'9#B ' AB' ?C;# #?' K;? ' = '#B ; !?; ' (CKK8 @ # =A' B ' ; @ ' = ' B 88' &!# # ' ?!' / ;8 < =#4 #?' ; @?<L < = ' #?' =>' ?!' #B ' ?< < ## ' #?' F < = ' = ' # " '#; 8' ?!'#B 'EB?8 ' !! ;4 #B ' C!# @ ' = ' NC #>'4‖ ?!' #B ' D#4' #B ' & ;8 ' K;?< ! ' = ' B?<?8?A L # ?= ' < ' #B ; = =#4 #?A #B ;'E #B'#B ' K?! # ?= ' 8; >'# " =Ź = ' !' = ' D ' #?' ; 9 F < = '#B ' & ;8 ' D !?; ' #B ' ‖ @NK=# ?!' % ;D #49 = ' J?B=' 1 ; 4' E #B' K?E ;'#?' #B ' ?< < ## '#?' # ;< = 4' ?;' ?#B ;E > '#?' ; K?;#' = ' =' #B ' < =# < '#?' ?; =' ŦB ' & ;8 ' #?' K >' #B ' =# ; !# ?!' #B ' ' (=#> #B?C! = ' < ;" 4' EB @B' =?E' <?C=# ' #?' !?C;' #B?C! = ' = ' #E?' BC= ; ' < ;" ' > ;8>4' ?;' #' 8 !# #?' K >' #B ' B 8! ' ?;' #E?' K ;# #B ;?!' #?' #B ' / # # ?= ; ' !?;' #B ;' 8 8>B?? 5' = ' !?;' B 8K' #?' K >' EB #' > #' ; < = ' ?!' #B ;' D#4' C=K > '#?' #B ;' ; #?; ' P2B @B' / # # ?=' D =A' CK?=' #B ' #E =#>' AB#' >' ?!' >'8 !# D>K !# ; ' =' K8 =' ' / ;8 < =#' ' [' AB' ?;= ! @< ;' = ' &!# # ' ?!' / ;8 < =#' ' ; =' #B ' '& ;8 ' ?!' !?;#B ' K;?@C; #?; ' #?' ! ' = ' =!E ;' #B ' ! < =' A =!# %BC; >' #B ; !# ;' D !?; ' #B ' ?< < ## ' !?;' K; #' !! ; 4 = ' < ## '#?' #B <' #?' K; K ; ' = ' @?=! ;' #B ' < =' = ' #?' ; K?;# ?' #B ' / ;L 8 < =#' *=' ?D =@ ' #?' EB @B' *=# ;8?NC #?;' #B ' ' ?< < ## ' !?;' K; #' ! ; ' B =A' CK?=' #B ' #B ; ' >' ?!' JC= ' =!# =# @ 88 ' #B ' ' C! ' #B >' < ## '#?' #B '& ;8 '?!' 1 =#?; 4' 0?; ' =9' !#;C#B ;' = ' ?< < ! ;' (<?' # #B; ' ?!'#B ;' ?E=' =C<D ;' #?' @?=! ;' #B ' B 88' K;?@ 4 = '#?'K; K ; ' = ' ; K?;# #B ' (< ' #?' #B ' ?< < ## ' = ' ?;L = ' =# < # ?=' #?' D ' < '#?' #B ' & ;8 ' ?!' (9' !?;#B ' K;?@C; #?; ' #B # #B >' < AB#' A ' =' #B ;' =!E ; ' = ' ! =@ ' A =!# #B ' <?;;?E' #B ;L !# ;4 #?' #B ' (CD9 ?< < ## ' EB?' E ; '#?' < # =' #B '%B ! C;>' 8?! # #=>= ' '@8?@"Ź *=' ?D =@ ' Y#?' #B ' D? E; ## =' ?; ;' J?B=' <' < @ ;' ' CK?=' #B ' '#B ; ' >' ?!' JC ' ' < " ' =# < # ?=' #?' ‖ ? ; @"' ‖1 (=W ' C= ?;' K;?‖ !?;' #B ' ' & ;8 ' ?!' (!?;#B'#?' ## = '#B ' D? 'E; ## =' (CD' ?< < ## ' >'B?C;' = 'K8 @ ' D? < =# ?= 'D>' FB D # =A' #?' B <'#B ' D? E; ## =' E ;; = ' = ' #B ' ' ?< < ## ' !?;'K; #' !! ; ' B =A' CK?=' #B ' AB#' >' ?!' JC= ' #B ; !# ;' @ 88 ' #B ' ' @ C! 4' #B >' ?; = 9#B 'K # # ?= ; '# 'K;? C@ ' #B ' A;?C= ' ?!' #B ' D#' C 'D>'#B ' & ;8 ' ?!' (!?;#B' A =!# ?= >4#B =' = F#' = '?; = ' =# < # ?=' #?' D ' < ' #?' #B ' & ;8 ' K;?@C; #?; ' #?' ## = ' A =!# #B #' > #' = ' 8 " E > ' #B ' !@?C=# ?!' % ;D #' #?' ## = 4' = 'J?B=' 1 ; ' ?!')"`A ;' !'D ' E ; ' =' %?C=' = ' ?; = ' #B ' / # # ?= ; ' #?' 'K;? C@ ' #B ' & ;8 ' K; =@ K 8' K?! # ?=' ?=!?;<' #?' EB @B' *=# ;8?NC #?;' #B ' ' K # # ?= ; '

K;? C@ ' #B ' A;?C= ' ?!' #B ?; ' D#' = '8 " 9‖ E > ' K;? C@ ' #B ' & ;8 ' ?!' (!?;#B ' K; =@ K 8' K?! # ?=' # " =' D !?; ' ' ?< < ## ' ?!' K; >' ?C=@ 8' CK?=' #B Y! !#B' >' ?!' CAC!#' = '#B?CL ! = ' (F' BC= ; ' = '=>=#>' ?= '> ; ' = ' B ;9' !# ;'CK?=' #B '# =#B' >' ?!'JC= ' =!# =#' =# < # ?=' D =A' < ' D>' #B ' ! 'J?B=7' <' < @ ;'#?' ‖ J?B=' 1 =" ' = ' ‖' ? ; @"' ‖1 =W ' K;?@CL ; #?; ' !?;' #B '! '& ;8 '?!' (!?;#B' D>' FB D # =A' #?' #B <' #B ' !?; ' 2 ;; = 4K ; D= 88>' KK; ' B = 4' = '#?' #B ' ' !@?C=# ?!' % ;D #' D>' @NC =# =A' B ' (; =# 7 #' B ' C 88 =A' B?C! 'D 9' @ C! 'B 'O?; B K' E '#B ='DC! 4' #?' @?<K ;' D L !?; ' #B ' ' ?< < ## ' >' = 'K8 @ '!?; ' * ;' ?D =@ ' #?' EB @B' *=# ;8?NC #?;' = ' =# < # ?=4' < 'D>' ;#C '#B ;?!4' #B 'K;?@C; #?; '!?;'#B '8 ' & ;8 ' ?!' (!?;#B' 'A ' ='#B ;' =!E ; '#?' #B ' ' ?< < ## ' < " =A' < =# ?=' #B #' #B ' @ !#) ?;A ' & ;8 ' ?!' (!?;#B' A; = ! #B ;' #?' #B ' ' & ;8 ' B =A' @?=#; @# ' = ;' ' < 88 ?=' ?!' D#' O#B;?CAB' B ' B ; =@ #?' 1 =A' B ;8 '#B '! ; # B 9' (; @ '!?;' EB @B' B '=?;' B ' ?= ' & ;8 ' 1 == #B9' ! #B ;'#?' #B ' '& ;8 ' ?!' (!?;#B' A?# 8 #8 ' ?;†' =?' ; @?<K =@ Ź #??=A!#' EB @B' D# ' #B ; ' E ' 'D?= 4'A; =# 'D>' B <' #?' #B ' '(‖J < ' <L >' !?;' EB @B' B ' ?< ## ' #?' K ;!C ' # 88' ?#B ;' ; #?; ' B '@ <K8 # '#B ;' ; 8' 8 A =@ 4' #B ' ' ; AB# 4' EB ;?!' B '@ ;;> ' E >' #B ' '&!# # ' = '#B ' '‖(‖J < 'B =A' A =' =' 'D 88' #?' B ' 'B AB' ?<< ! ?= ;' = '&!# # '?!' / ;8 L < =#' =' #B ' > ;' = '#B?C! = ' (F' BC= ; ' = ' =>=#>' @ 8C<= ?C88>' ;@K; ! =# =A' #B #' =' ?;' D?C#' #B ' > ;' ?= '#B C8 = ' (F' BC= ; ' = ' AB#>' ?;' = '#B?C! = ' (F' BC= ; ' = ' & AB#>' ?= !# ;' ! ; 8' #;>!# =A ' D #C F#' B <' K '#B ' ! ' & ;8 ' = ' B ' !; = ' #' E ' #' 8 =#B' @K= !@ = ' #?' #B #' #B ' & ;8 ' ?!' =7' *B?C8 ' A; =#' D?= '#?' #B ' '(‖J < ' ?;' K >< =#' #?' B <' ?!' =' > ;8>' ==C #>' ?!' = '#B?C! = ' < ;" 'CK?=' 'K; # = ' O K;?;?A # ?=' #?' #B ' ! ' & ;8 ' ?!' ;;' ?!' '# @"' ?!' #B 'O E 4' = '! 8! 8>' ' A '#B #' #B ' 'D?= ' E ' =#;C!# 'D>' B <' #?' #B ' '& ;8 ' ?!' (!?;#B' B?#' =?#' ; D ; '#?' B <' @?=!?;<' #?' #B ' ' & ;8 7' K;?< ! ' ?' #B #' #B;?CAB' 2 =# ?!' #B ' ' ==C #>' B ' E ' ; @# '#?' #; # ' ' K?=' EB @B' @?<K8 =#' #B ' K?! # ?= ' ?!' #B ' @?C=#' ?!' % ;L D #' = ' J?B=' 1 ; ' ?!') ?A ;' E ; '# " =' = =#' EB #' #B >' "= E' ?!' #B ' ' !8 ;' D !?; '#B '#B =' ?< < ## '!?;' @?=#; ;# ' 8 @# ?= ' B?#' #B ; 'D L =A' =?#B =A' =' #B ;' ' K?! # ?= '#B #' @?C8 ' =' O E' ! F' =' ?D8 A # ?=' ?=' #B ' ' & ;8 ' ?!' (9‖ !?;#B' !?;' K >< =#' ?!'#B ' ' ==C #>4' #B ' / ;8 L < =#' 8 !#' #B ' < ## ;' C= # ;< = ' !# ;' EB @B' =' JC= ' = '#B?C! = ' (F' BC= ; ' = '=>=#>' ?= ' #B ' '(‖J < ' ; 8 ' '= E' ?<K8 =#' ?!' #B ' 8! ' < ' = #C; ' A =!# #B ' ' & ;8 ' D !?; ' #B 'O?; ' ?!' /; >' ?C=@ 84' EB @B' D =A' ; ! ;; ' #?' #B ' '& ;8 '? #B4' B ' K?= ' =' #B 'K8 = !# # ;< ' < A = D8 '= A # ' '#?' #B 'B ''K?>=# ' ?!' #B 'O>D 88' = ' *=# ;;?A #?; ' #B ;?=4' =@ ' EB @B'

, (

< ' #B ' ' (ⅈ J < ' = ' B ' 0 >' B 7'=?#
@ ! '#?' F' = ' NC #' B <' D>'#B ;' @8 <?;?C '
D 88 ' = ' <K?;#C= #>' D !?; ' #B ' / ; >' ?C=@ 8' '
!' B ' E ; '8> D# ' !?;' K >< =#' ?!' #B ' ' ==C #>4'
?;' =>' K ;#' ?!' #B ' ' K; # = ' ?; A = 8' D#4'
8D #' B ' B ' = #B ;' ; AB#' =?;' K?! ! ?=' ?!' =>'
& 8 # ' D 8?=A =A' #?' B ') ; = ! #B ;' = ' #B #'
#B ' ' (ⅈJ < ' = ' B ' 0 >' B '#B =' #' 8 =#B'
A =' =' ' = E' D 88' #?' B ') ; @ ' = ' 0?; B K '
@?=# = =A' ' ; K; ! =# # ?=' ?!' #B ' ! 8! ' ! ;# ?= '
= ' @8 <?;?C ' !K ;! ?= ' EB ; E #B' B ' !?;< ;'
D 88 ' #?' / ;8 < =#' = ' ?C=@ 8' E ; ' #C!! ' D?#'
; #B' 88' !; C C8 =#8>' @?=@ 88 =A' = ' CKK; ! =A'
#B ' #;C ' K;?@ C; ' =' #B #' !! ;' EB @B' ' ' D? '
; K; =# ' = '@; '#B #' B ') ; @ ' = '&! # '
?!' / ;8 < =#' E?C8 ' ; @?< < = ' #?' =>'=!' #B ;'
?< < ## '#?' F < = ' = '# " '#;> 8' ?!'#B ' EB?8 '
!! ;' E #B4#B ' C!8 @ ' = ' NC #>' ?!' #B ' D#4' #B '
! '& ;8 'K;?< ! ' = 'B?<?8?A # ?= ' < '#B ;9'
= =#4' #?A #B ;' E #B'#B ' K?! # ?= ' 8; >'# " =4'
= ' !' = 'E ; '#?'; 9 F < =' B <' D !?; '#B ' '
@?C=#' ?!' % ;D #' = ' J?B=' 1 ; 4' E #B' K?E ;'#?'
#B ' ?< < ## '#?' # ;< ;4' ?;' ; K?;#' = ' =' #B '
< =' # < ' @; =A9' =' ?; = =@ ' !?;' K >< =#' ?!'
?< ' K ;#' ?!' #B ' ==C 8; =#' ?!' #B ' F#; A =#'
?C< ' 8>D ' ' 2 B @B' D 88' D =A' ; < ## ' #?'
#B ' ?< < ## ' !?;' K; #' !! ; '#B >' D>'#B ;' *=9'
;8?NC #?;' ?=' #B ' AB#' >' ?!' JC= ' =!# =#' '
; =4' # ' ' (ⅈJ < '#?' K;? C@ '#B ' A;?C= '
?!'B ' D#' #?A #B ;' E #B'#B ' ! '& ;8 ' K?! # ?='
D !?; ' #B ' / ; >' ?C=@ 84' *#' E '#B =' BC< D8>'
; K; ! =# '#B #' #' E ' < ; ' E #B' EB #4'@?=L
! =@ ' #B ' (' (ⅈ J < ' = ' B ' 0 >' @?C8 '
#;?CD8 'B ') ; @ ' = ' 0?K ' E #B' C@B' '@8 <?;?C '
D 88' !# ;' #B '# " =A' ?!' #B ' !@?C=#9?!' % ;D #' = '
J?B=' 1 ; ' ? #B ' =' #B ' ! ; # =!8 =@ ' = ' EB ='
#B ;'+ K?! # ?= ' @?C8 ' =?# 8' B <' ?' '#B ; D>'
#?' ! F' =>' ?D8 A # ?=' CK?=' #B ' ! '& ;8 ' !?;' K >L
< =#' ?!' =>' K ;#' ?!' #B ' K; # = ' ==C #>' 89'
8 A 'K;?< ! 'D>' B <' #?' #B ' ' (ⅈJ < 'd#B '
' (ⅈJ < 4 #B ; !# ;' #??"' #B ' ! '& ;8 ' ? #B'
EB @B' !# ;' ;! =A' E?C8 'D '!?C= ' #' E ' B?K '
=?E > ' #?' K;? ' B ' < ' NC? ' #B 'K; # = '
==C #>' ' A 'K;?< ! 'D>' B <' #?' #B [' (ⅈ
J < -' = ' B ' ? #B' D =A' !?' @8 ;'#B ; 'E?8 'D '=?'
= @ ! #>' !?C= ' ?!' '; 9 F < = # ?=' = 'NC? '#B '
?; A = 8' D#' ' A ' E = ' D>' #B ' ' & ;8 '
) ; = ! #B ;' #?' #B ' ' (ⅈJ < ' *#' E '=?#?C;8>'
"=?E='B '=?E > ' '; K; ! =#'B ') ; = ! #B ;' = '
#' E?8 'D ' ' =?!#' =A ;?C ' K; @# @ ' = 'K; K ; L
'#?' D = ' =@ !#?; ' D# ' ?=' < =' EB?' B '=?#'
'A;? #' D>'#B <' #B ;' =' # #8 '?;'K?! ! ? ' (?' #B #'
#' E 'BC< D8>' ; ' #B #' #' 8 !#' ?' C= C!#' = '
88 A 8' @8 <?C; ' D ' ; K;? ' = ' #B #' #B ' ! ' (ⅈ
J < ' = ' B '0O >' D ' 8 !#' #?' K ;!C ' D !?; ' #B '
?; = ;' JC @ #C; ' =>' K ;!?=' ?;' 0 = '8> D8 '#?'
#B <' =' 0 E' ' @@?; ' 2 B @B' D '' = ' =!E ; '
D =A' CK?=' #B ' >' = ' # '?!'#B ;' K; =# ' ; '
<' K; =@ ' ?!' B ' # ' B AB' ?< < ! ?= ;'
= '#B ' &8 # ' ?!' / ;8 < =#' = '#B >' #B ; E #B

' ' ' ! ' □

D =A' E 88' = ' ;>K8>' ! ') ; =# ' = 'B ; L
D>') ; =# ' =' 8 < =#' #?[#B ' / # # ?= ; ' = '#B '
8?=A !#' 0 ;' ?!'#B <' #E?' ?!' ?= '#B?C! = 'K?C= '
!@N# ' > ;8>' C; =A' #B ' K = =@ ' ?!' #B ' !?;A 7'
& C@# ?=' 2 B @B' 8 < =# ' B ; D>' @8 ; ' #?'
@?<= =@ ' !;?<' 2 B #!C= >' 8 !#' D>' K !#' = '#B #'
?C#' ?!' #B ' 0 = 'K?! !#' D>' #B ' '& ;8 ' ?!' (9'
!?;#8b ' ?;' #B ' ?C=#K! ' B ' ?#B ;' = ') ; =# '
= ' B ; D>') ; =# ' 2 ;; = ' !?;' 0 ## ; ' ?!' B?;=L
=A' ?=' ! !# =' > ' #?' K ! ' A =!#' #B ' K?! ! ?; '
=#;?< ## ;(' = ' ! @#?; ' ?!' #B ' ' 0 = ' = '
?#B ; '= !C88' ='P!?;<' ' ! ;

% &' ; 8' ?< < ## † KK?>=# '#?' < #' #?'
<?;;?E' #' AB#' '@8?@"' =7#B ' <?;= =A

% &' 0?; ' / ; ! =#' D>' ?; ;' ?!' '
?< < ! ?= ;' ?C;= '#B ' / ;8 < =#' # 88' #?'
' <?;;?E' #' # =' '@8?@"' =' #B ' !?; =?? !

J ' &' , , ***4' 4+ 4,

/ ' & (' ' ?88 '@ 88

*(' B8 # ' ?< < ! ?= ;' !?;' #B ' ; 8' ; 9' d ◁D; '
!?= ' ?!! ; ' F@C! ' #B ' D! =@ ' ?!' (ⅈ %B?< '
C;= #' ?!' 0 > 4' (ⅈ 2 88 <' + =B?8<' ?!' 2 !#9'
!8 88 4' ⅈ ;DC#B= #' ?!' 1=?F' =
(@?#' ?!' 2 88

% &' =C# '?!'#B '8 !#' (;C=#' ;

%' D;?CAB#' =' !;?<' #B ' ?< < ## ' !?;' (@C9' d @# K '
; #>' ?!' #B ' 1 =A ?<4' A =!#' D8 !KB <>4' = '?#B ;ⅈ
@; < '?!'#B #'= #C; ' ; ' ?# ' = ' KK;? =' ? &' &
(@ K#; -

%' D;?CAB#' =' !;?<' #B ' ' ?< < ## 4' L
@B ;A =A' ;; AC8 ;' < ;; A ' = ' D K# < 4' ; '
?# 4' = ' KK;? =

%' D;?CAB#' =' !;?<' #B ' ' ?< < ## ' A =!#
K;?KB = = ! ' ; 4' ?# ' = ' KK;? =
0 '

%' 88?E =A'* * A #; # '?!' C;AB '#?'@B =A '#B ;'
E "8>' < ;@ # ' !;?<' (#C; >4' ?;' !;?<' ?= >4'
#?' =>' ?#B ;' >' ?!' #B 'E "4' K;? =A' #' D '=?#'
#B '< ;@ #' >' ?!' =>' ?!' #B '= F#' @ =#' C;AB 4'
; 4' ?# ' = ' KK;? =

0 0' #B ' ' @# ' #?C@B 'E #B' #B ' (@ K# ;' D>'
B ' # ' ?< < ! ?= ;' =' #B 'C!C 8' < == ;

%' A = #' 8 KB <>

' ' (& *) 1' 0 +' E #B' @ ' = ' '
?= =#' ?!' #B ' & # # ' ?!' / ;8 < =#' +? 'B ; D>'
!>' KK;? 4' = ' ?=! ;<' #B ' #E =#>' ! ; #'
@#' ?!' #B ' ! ; #' (! ?=' ?!' #B ' ! ; #' 2+!%2 . -73' ?!

1 =A B ;8 #B (@?= *=# #C8 @# A = # #B @; < ?!8 KB ;=>4 =#B B 88 B 4 @8 C! 4 = ;# @8 #B ;?!4 ;? ; = #B < #?D KC# #? C = KC=@#C 8 &F @C# ?=Z B ! ; ; #>E #B @ = @?= =# !?; (# #C# = ; = 4 #B # EB? ;B ; !# ;!8 88 =#B ;E; # =A ?; @?C;! 4 =>4 <KCA= ?; NC ;; 884 ;AC ?; % !?=4 A =!# #B D =A?!)? 4 ?; =>?! #B K ; ?= ?! #B D8 ! %; = #>4 ?; #B CL #B?; #>?! #B ?8 (@; K#C; ?! #B ?8 = = E % # #= =# 4 ?; #B K;? =@ ?!) ? =#B) ?L ;=< =# ?! #B 2 ?;8 4 B 88 !?; #B ! ; # ! C8# D KC= B E #B *<K; !?=< =#4 > = EB 8 #B > A KCD8 @"(# @# ?= = (@"8?#B #? #B ?=9 A; A # ?=4 E #B = EB @B #B (@ = 87E @?<< #L # = !?; #B @?= ! C8#4 #B 8 =NC =# 8B 88 D ! = = =#B #E =# #B K ;# ?! B !; K ; ?= 8 &!8 # 4 = #B #E =# #B K ;# ?! B !; K ; ?= 8 &!# # X#B NC 8 B 8! ?! EB @B !>= ; #?D KK8> #? #B C! ?! #B K??; ?! #B # / ;?@B4 E #B = EB @B #B @; < !8 88 B KK = #?D @?<L < ## 4 = #B ?#B ;B 8! #? #B K ;#> *=!?; < ; D ! B D =A <K; !?= 4 > = EB 8 B < " A = (# ! @# ?= C# CK; = !?; #B #B ; ! C8# B !# 88 D KC= B D> #B = ?D!# = # 8 KB < ; 0 " 7; E #B @ = @?=! =# !?; 4 B ; D> C#B?; W = !#; @#8>; L NC ; = = ?>= 88 A #; 8 = = !# ; ?! #B 0 E0 = JC A E #B = #B 1 =A ?<4 #? KC# #B K; =# @# = &F @C# ?= #? #B ! ; # ! C8# = ? B ; D> = K?E # = ; NC ; '' (B ;; !! 4 (#C ;# 4 88 ?! 88 ; Q A 8 # = #B ;4 KC# 4 Q A #; # ?! C;AB 4 #? KC# #B K; ! =# @# = F @C# ?= #? #B ! @?= ! C8# = (#? #B #B ; ! C8# B E #B @ Q @?=! =# !?; ; < ## #B F @C# ?= ?! #B K; L =# @# #? #B 0?; ?! B JC!# @ ;>

%A = # *;; AC8 ; K# < = ;; A

' (& *) 0 +? = ; =A #B # #B K# W =A ?! B 8 ; =4 = (?8 <= W =A ?! ; A D> #B 0 E = C!#?< ?! #B 1 =AL ?<4 = D> #B ?=!# #C# ?= ?! #B BC;@B4 B 88E > D =? ?= D> = # ; 9?! #B)? K 8 C#B?; W D> 0 E4 = #B & # D8 B BC;@B ?! #B # ?=Z = #B # =?#E #B!8 = =A #B ;?! ; 8 = # ; =?E ?C# ?! #B ;? BC;@B ? K; !C; #? D K# W @B 8 ; =4 = (?8 <= W < 9 0 ; A 4 E #B?C# K;?@8 < # ?= ?! D == ?; @?=# =# ?! / ; =# 4 = ?< # < E #B = #B !?;D = A; Z %B ; !?; B #> E #B @ = @?=! =# ?! #B &!# # ?! / ;8 < =#4 !#; @#8>9K;?9 B D # = @B ;A 88 ?C# = # ; 4 #? D K9 #0 # W => @B 8 ; = ?; (?8 <= W < ; A D #C F# => K ;# = 88 # < @?< =A4 C= ;#B K = ?! <K; !?== =#4 > = EB 8 B ! = C# ?= #? A? ?C# ?! #B 1 =A ?<4 = = ;#?; #C;= #B ; #?

= ; < ## [#B &F @C# ?= ?! #B @# #? #B 9 = !# ; ?! #B 0 E4 EB? !#? ! !# #? #B F @CL # ?= ?! #B #E =#> #B ; @# ?! #B !?C;#B (! ?= ?! #B / 8 < =# !?; (#8 =A #B NC # = K @ [?! #B BC;@B Z + @8 ; =A 88E > #B # #B K; L =# @# E #B?C# K; C @ #? #B @# ?! / ;8 L < =#4 8; > < A =!# K; # = @8 = !# = < = A 4 EB @B ; B ; D> @8 ; #? !# = = !C88 !?;@ 4 = #B # F @C# ?= < > K;?@ ?= #B 9 @# # #B =!# =@ ?! #B K ;# @?=@ ;= ?; ?! #B / ;?@C; #?; ! @ 8 ?! #B JC; @# ?= 5 EB ; #B > !8 88 B KK = #? D NC !# ?= 4

%A = # / ;?KB = = !

' (& *) 0 +? = & # # ?! / ;9 8 < =# ?= ; =A #B # #B #E =#> ! !#B @# ?! #B (@?= (! ?= ?! #B @C;; =# / ;8 < ; !*=L # #C8 @# A =!#TK;?KB = = ! 4 = #B @# A = ; 88> = K ;# @C8 ;8># B ; = ; # !> 4 B =?#9 # " = #B E B !! @#4 #B;?CAB #B = A8 A =@ ?! #B A !#; # !! @ ; = ?#B ; @?=@ ;= 4 #? KC# #B < = =&F @C# ?= 5 + ? B ; D> C#B?; W 44 = !#; @#8>; NC ; = = ?>= 88 (B ;; !! = #B ;+ KC# 4 (#C ;# = #B ;+ KC# 4 88 ?! 88 ; = A 8 # = #B ;+ KC# 4 L A !#; # ?! C;AB ?> 88 = JC!# @ ?! / @ 44 E #B = EB?! D?C= => ?! #B (= !?;D = D> #B (0 E !# 88 B KK = #? D @?<< ## 4 #?9 KC# #B @# #? 3F @# = KC=@#C 8 F @CL # ?=4 # 88 # < 4 E #B?C# = @ ! #> ?! => K =9 ! # ?= 5 = A =!# 88 K ;!?= 4 EB #B ; ?!! @ ; 4 ?C8 ; 4 ?; ?#B ; E #B?C# F@ K# ?=4 E #B #B ;# ! @ # ?=4 #B # C@B ?! #B JC A !# 88 ; !C! 4 = A8 @#4 ?; 8 > #? KC# K -,$ &F @C# ?=4 CK?= KK8 @ # ?= ?! => ,$,- 1 ;"(! ?=4 => K ; ?= = #B ; = < 4 A =A4 = *=!?;< # ?= = ?!! ; =A C!! @ =# K;?D # ?= A = # #B ?!! = ;4 #B # ;> ?= ?! #B JC A !C ; !C! =A4 = A8 @# =A4 ?; 8 > =A4 !8 884 #?# NC?# D C8> @# = 8> D8 #? !>= ?! BC= ; K?C= !@?# 4 #? D KK8> !?;#B C! ?! #B K??; ?! #B K ;?@B4 EB ; #B (@ = 8 @?<K8 = ?= E @?<< ## Z + @8 ; =A B ; D> #B # #B A =# !?; #B 1 ;"4 #B = !# ; ?! #B 9 / ;?@B4 ?; => ?#B ; K ; ?= B =A E ;; = !;?< B <4 ?; !;?< #B 1 ;"(! '=4 9E #B = #B / ;?@B EBK;?! #B (@ = 8 @?<K8 = ?= E @?<< ## 44 !8 88 B A?? =# ; !# #? KC;!C D !?; #B 0?; ?! (! ?=4 => ?! #B !?; JC A EB? !8 88 B KK = #?; !C# 4 = A8 @# ?; 8 > #? KN# #B 0 E A =!# K;DKB = = ! #? F @# = KC=@#C 8 F @C# ?=4 EB? ; B ; D> ?; = #? K;?@ C< < ;8>4 E #B?C# #B ?; ; ?! #B ?884 = #B # # !8 ' D ' C!! @ =# K;?D # ?= ?! #B %; !C! 84 = A8 @#4 ?; 8 >4 ! #B / C; C ; =!#;C@# D> = *=9 !#;C< =# C= ; ?## ; B = 4 = E #= ! 5 #B ; #? CD!@; D =A4 = K?= =A #B ;CK?=4 #B # B =!?; <#B JC A ?! #B !@ = 8

(' ' '*=;

= '?!! ; ' ' C!! @ =# K;?D # ?=' #B ;?!4 C=8 ! ' #B ' 0 # == =# D88?= 88' < 8#?=4' = ' #B ' '
JC A ' C ' KC;!C ' @? !@ = 7' = ' =!#;C@#4 #B #' 0 ## ; ' D =A'; 4' !# ;' D # ' #B ; ?=4' ?# ' ! ; #'
E #B =' #B ' K @ ' ?!' # =' > ' !# ;' #B ' ' KK8 9' K;?@ ' ?;' 8 >4' = ' @ ; ' K;?@
0 # ?=4' B ' A ' ?; ;' #?' @ # ' #B ' K ;#>' @?<K8 = 9' % & ' #B ' NC !# ?=' # # 4' EB #B ;' (\' %B?< '
?=4' #?' @?<K ;' D !?; ' B <4' E #B =' #B ' K @ ' ?!' # =' 0 =A!#?C=' B '; !?=' #?' A ' C@B' ?; ; 4' ' E ; '
> 4' = ' #B #' #' #B ' >' ?!' ?<K ; = 4 \\B ' E ' @?=# = ' =' #B ! ' 0 ## ; ' ?;' =?#4' #' @ ; 7' =' #B '
; >' = ' E 88 =A' #?' B ' # " =4' @?A= # ?=' = ' !! ;< # '= < = ' @?=#; @ =#
#;> 8' ?!' #B ' (@ = 8' @?<K8 = ' ?=4' = ' *=!#;C@#'
= ' ?= ! = ' ?=' '; 8 =#' ; !?=' EB>' #B ' ' 00 &00' 88' = ' 0 # == =#' ?88?= 88'
0 E ' E ; ' =?# KC#' =' &F @C# ?=' A = #' #B ' K ;L < 8#?=' ?; ; ' #?' ## = ' #B ' = F#' (;C=#' ?!' '
?=' @?<K8 = ' ?= / ;8 < =#

%' !?;' #; = =A' #B ' / ;?! = # ?=' ?!' ' / / (0' !?;' < " =A' (8#' CK?=' (8#4' ?!! ;9' M 6 '
#B ' 0?; 9 >4' D>' " K =A' 2 "8>' ;@ # ' ' Q' ; < ## ' #?' #B ' ?< < ## ' ?! ' #; ' #?' D; =A'
?=' ?= >' Q' (#C; >' 0 =' =' @#' #B > = =#

V' ' ' (/ & *) ' 0 +' ?= ; =A' #B #' % &' / ;?@ ' ?!' #; !?=' #' #B ' 1 =A ' ?@ # ' T *+- , ' +,'
#B ; ' ' =NC@B' ?@@ ! ?=' A =' !?;' K;?! = # ?=' ?!' #B ' =!# =@ ' A =!!' #B ' & ;8 ' ?!' 8!?;#' = ' ?#B ; ' =' #B%K ;!'+,'
0?; 9 >4' D>' " K =A' ?!' E "8>' < ;@ # ' ?=' ?=L $; =@ ' @ 88 4' = ' @?=# =C ' # 88' *(*?= >' = F#4' ,+* '
>' = ' (#C; >4' = ' #B #' !?;' K; =# =A' ?!' #B ' = ' #B ' E #= ! ' ?; ; ' #?' ## = 4' @B' C= ;' #B '
DC! 4' #B ; ' ; ' ; 8' @# ' ?!' / ;8 < =#' K;?B L K =' ?!' =' BC= ; ' K?C= ' !# ;8 =A
D # =A' #B ' " K =A' ?!' E "8>' < ;@ # ' #B ' ' % &' ; CAB#' ?!' =' @# = =#' #B ' =#' ?!! ; 4' ! = =##B '
> ' E #B =' ?> 8' C;AB 5 B?#' #B ' ' @# ' =?#' = ' ; < ## ' #?' #B ' ?< < ## ' !?;' (@C; #>' ?!' #B '
@?<K; B = =A' #B ' C;AB ' ?!' A 8 #>' = ' ;9' 1 =A ?<
;?=>4' = ' E "8>' < ;@ # ' =' 88 A ' = ' 1 ;"9'
%?C= 4' #B ' ' C;AB ' 88 A ' = ' 1 ;"9%?C= ' % &' ; CAB#' ?!' =' @# = =#' #B ' =#' ?!! ; 4' ! = =##B '
; ' = @ ! # # #?' " K' #B ;' E "8>' < ;@ # ' ?=' #B ' = ' ; < ## ' #?' #B ' ?< < ## ' !?;' (@C; #>' ?!' #B '
\' > ' @?=!?;<' #?' #B '9 K @ 8' @# ' ?!' / ;8 L 1 =A ?<
< =#' < ' =' #B ;' ! ?C; 5' = ' > #' < =>' ?!' #B '
K ' C;AB 4' 88 A 4' = ' ?#B ; ' E?8 ' <?!# E 88L
=A8>' 8# ;' = ' @B =A ' #B ' ' < ;@ #' > 4' !'
#B >' E ; ' B?#' <K?E ; ' = ' C#B?; W ' !?;' #B #'
!! @#' %B ; !?; ' ' 7>' E #B' #B ' @ ' = '
?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' +? ' =?#'
?=8>' # !>' = ' KK;? ' #B ' ' @# 4' ?!' / ;8 L
< =#' < ' A = #' #B ' " K =A' ?!' E "8>' ;@ # '
CK?=' ?= > ' = ' (#C; > ' E #B =' ?> 8'
C;AB 4' B?#' 8 " E > ' ? ' @8 ; ' #' 8 !C<' = '
8 E!C86' #?' 88' C;AB ' ?!' A 8 #>' = ' ;;?=>' = '
88 A \ = ' 1 ;"9%?C= 4' EB?! ' E "8>' < ;@ # '
; ' " K#' #B ' ' > 4' #?' @B =A ' = ' 8# ;' #B '
< Z' = ' #B ' ! ' C;AB 4' 88 A 4' = ' ?#B ; '
; ' B ; D>' C#B?; W ' #?' @B? ! ' = ' KK?>=#' =>7'
?#B ;' > ' ?!' #B ' 2 "' #B >' #B ="' ! ##4' !?;' #B '
" K =A' = ' B?8 =A' ?!' #B ' ' E "8>' < ;@ # 4'
#B >' ' E > ' < " =A' # <?C ' =# < # ?B' ?!' #B '
' @B =A ' #?' #B ' = F#' @ =#' C;AB 4' = ' K;?L
=A' #B >' K #@B' =?# CK?=' #B ' < ;@ #' >' ?!' =>'
C;AB' ?> 8' = F#' @ =#4' ?;' ?!' =?#B ;' < ;@ #'
%?C=' E #B =' !?C;' < 8 ' = ' #B #' #B ' @#' D '
=?#' F# = ' A =!#' !8 B ; ' E #B =' ?> 8' C;AB 4'
EB?' < >' " K' < ;@ # ' ?!' !# !# ' =' #B ;' ; K @L
' C;AB 4' CK?=' #B ! ' > 4' #B ' @#' =?#E #BL
= =A

%' !?;' =@?C; A =A' #B ' &FK?;# # ?=' ?!' @#C 84' ,1G<+* '
; 4' ?# ' = ' KK;? = + ' ,'
7 - %0

%' !?;' =@?C; A =A' #B ' &FK?;# # ?=' ?!' @#C 84' ,1G<+* '
; 4' ?# ' = ' KK;? = + ' ,'
7 - %0

% &' / # # ?=' #B ' #>' ?!' & =DC;AB4' @; =A' ,) ' +,'
2 ;; =#' #?' @ # ' #B ' & ;8 ' ?!' 8 84' K ' 1. / *0 '
?=@; !! ' ?!' ?;= K 4' #?' B ;' = ' ! ' ' D?= ' ?!' 04' 1 * ' +,'
#B; ' #B?C! = ' K?C= ' !# ;8 =A' A; =# ' D>' #B ' 7 T
#>' #?' #B ' ' & ;8 4' = ' ! A= ' D>' B <' #?' #B '
' ?=@; !! ' ?!' ?;= K 4' ; C@ 4' ;

% &' ?< < ## ' KK?>=# ' #?' < #' #?' <?;;?E'
#' = = ' ' @8?@"' =' #B ' !?; =??=

% &' 0?; ' / ; =#' D>' ?; ;' ?!' ' [' 4' ?< < ! ?= ;' ?C;= ' #B ' / ;8 < =#' # 88'
?= >' = F#' #' # =' ' @8?@"' =' #B ' !?; =??=

D = A' 9 ' ')]) R

/ & (' ' ?88 ' @ 88

* ' % (' ?!' #B ' 8 !#' (;C=#' ;

d = =#' #1 ' % & ' #B ' / ;8 < =#' K;?@ ' =' #B ' !C; ;' %' D;?CAB#' =' !;?<' #B ' ?< < ## ' !?;' (@C; #>' ` 43' 2#2%7,3'
#B CA # ;' ?!' #B ' (8 CAB# ;' ?!' #B ') 8 =@? 9< =5' = ?!' #B ' 1 =A ?<' A =!#' =#;C ;' =# ' BC;@B '
?!' #B ')8 =9' =' #B ' ! ; #' K8 @ ' ' #?' #B ' ?; ; ' A =' D>' (\' %B?9' E #B?C#' ' 0 A 8' 88' = ' < ! ?=4' ; 4' ?# 4'
>? < =' 0 =A #?C=4' =' #E?' ?!' B ' 0 ## ; ' ; @# ' #? = ' KK;? =

' E #= ! ' #?' @?<K ;' D !?; '#B ' ?<< ## '!?;' K; #' !! ; ' E #B' K?E ;' #?' #B <' #?' # " ' #B ;' ? # ' = ' K?! # D= ' = ' #?' @?=! ;' #B ' < ' E #B' #B ' +?@C< =# ' K;? C@ ' ?;' #B #' *B?C8 'D ' K;? C@ ' !?;' < " =A' CK' #B ' # =?;' ?!' #B ' E; # ' D? ' K !> ' = '#?'; K?;#' '#B '(' / # # ?=' = ' B ; =@ ' #B ;?=' D ; ' 0 " ' #B ' ' %B?< ' (" (=' =A ;' ?!' #B ' ' 88' K;? C@#4' #B ; E #B' ' !C88' = 9 F @#' ?CD8 ' =' 'K K ;' K ;#' ?!' #B ' E; # ' EB ;?!' #B ' # =?; ' ; ' @; ' #?' D ' K;? =' 9 ' /;?@C; #?;>4 ?!' ! A= # ?=' A; =# ' D>' J?B=' (" =' 8 ;' ?!' 8> ; ' #?' = ' =' !! ?C; ' ?!' J?B=' (" =' >?C=A ;' #B ;?!' ?!' 88' = ' B 88' #B ' 0 K ' = ' ;;?=>' ?!' 8> ; 4' ' K; =@ K 8' = ' #B ' 0 = ' ?!' 0 D ;#?=' = ' 3C?#B9' 9 NC?=' =' E ;; = @ ' *# <' =' *=!#;C< =# ?!' ! A9' = # ?=' !?88?E =A' #B ;CK =' *# <' / ; @ K#' ?!' (! =' C= ;' #B ' 3C ;# ;' (8' !?88?E =A' CK?=' #B ' B ;# ;' ?!' ! A= # ?=' K;?@ =A' CK?=' #B ' !?; ' / ;?L @C; #?;>' ?!' ! A= # ?=' *# <' ! ! =' =' ! ?; ' ?!' J?B=' (" =' >?C=A ;' ?!' #B ' ' 0 = 4' !?8L 8?E =A' CK?=' #B ' !?; ' K; @ K#' = ' + K?! # ?=' D>' #B ' 'J *J?B=' (" =' >?C=A ;' ?!' #B ' !?; ' 0 = ' Q' ;;?=>' ?!' 8> ; ' = ' E ;; = @ ' 0 = ' #B ; = '@?=# = ' #?' = ' =' !! ?; ' ?5 'J?B=' (" =' B ' 8 !# 8 E!C88' < ' ?!' #B ' EB @B' E; # ' #B '# =?;' !? ' ?E '@'X 0 0 9

0 " ' B ' 8!?' K;? C@ ' !?;' K;? =A' #B ' # =K;' #B ; ?!' #B ' E; # ' !# ;B =# ?= ' > ' *<K; < ' ;# ?=#; @# ?!' J ; A ' D #C F!' J?8 8=9 (Z =' >?C=A ;' ?!' 8> ; ' E #B' @?=! =# ?!' J?B=' (" =' 8 #?!' 8> ; 'B '! #B ;' = ' ;>' 1 ;' CAB# ;' #K' ; =A#?C=' E #B' @?=! =# #B ; =9' < =# ?= ' EB ; D>' #B ' ' J?B=' (" =' 8 ;' ' D?C= ' = ' ?DB A ' #?' =! !# P' J?B=' G $' B ' ?= ' =' #B ' 0 = ' ?!' 8> ; ' 8D ;= ' = ' ?#B ; '!?;' K; =@ K 8' = ' #B ' 8 C ' ?!' 0 DD ;#?C=' = ' ?#B ; ' =' E ;; = @ ' =# ; ?;' #?' #B ' K;?@ ; 9' #?;>9E #B' ' + @8 ; # ?=' C= ;' #B ' B = ' ?!' (' %B?< ' ?B ; !! ' 8 ;"' #?' #B ' &F@B NC ;' ;L =A' #B #' CK?=' #B ' ! !# =#B' >' ?!' J =C ;>' = ' #B?C! = ' (F' BC= ; ' = ' !?C;#>' #E?' > ; ' J?B=' = ; ?=' ; ! A= ' #B ' 0 = ' ?!' 8> ; ' = ' 8D ;= ' ' K; =@ K 8' 0 = ' ?!' 0 DD ;#?C=' = ' ?#B ; ' #B ; =' < =# ?= ' =' E ;; = @ ' =' ! L ?; ' ?!' #B ' ' 7' J?B=' (" =' >?C=A ;' E #B' 9' ! ; # ?=' @?=# = ' =' #B ' K;?@C; #?;>' = ' (A= 9' '#?;' = ' #B !' J?B=' @@?BD=' E ' ?## ;' ' 8!?' K;? C@ ' #B ' K; =@ K 8' A # ;' ?!' #B ' < =C#' ?!' A= # ?= ' =' &F@B NC ;' D A == =A' #B ' # =#B' >' ?!' (K# <D ;'* j' '#B ;#>' (F' > ;' = ' = L =A' #B ' ! !#B' >' ?!' K; 8 ' = '#B?C! = ' (F' BC=L ; ' = ' AB#>' #E?' > ; ' EB ; =' #B ' < =C#' ?!' #B ' !?; ' A= # ?=' ' =A;?! ' ' 8!?' #B ' B ;# ;' ?!' A= # ?=' C= ;' #B ' A; #' (8' #

4' %& ' +*' &,' & ' : * '& * '* , ** .' +' ' * .' ' 0 &' ' & ' 5 -+*.

)

; # ?= = # ? K ! # = @ = #B # / # # ?= ; # ! 0 K; # = 7< == ; D?% < =# ?= # C#B?; W =A = # <K?E ; BA #B <#^ CK8 !# = # <K8?> #B # @ = # !# K = # E #B = #B # + ?@ ! # ?! D ; =4 # 8 !# ?! #B # BC;@B # K ;# @C8 ;8> D? = < # b B = @ = 4 ?! EB @B #B # ? ' A # B # #B # ; AB# ?! / #;?= A Z = # !?;# #B # !! @# #? ?; = 0 #L # ; # ?! B?;= =A = # 88 ?#B ;# F @C# ?= # = !C884 < AB# K ! # # #B ;# = # #B ;# (C@@ ! ?; =!# =@ # A =!# 88 ; #?; # = # ?#B ; # EB #!?< ;#8> D8 # = K >< =# ?! #B ! # @ = # !# K = # 2 B @B / # L # ?= D? < =# ?= # D =A ?= ; # D> B # L # # B AB ?< < ! ?= ;# = # #B # ! # &!# # # ?! 0/ ;8 < =# %B > A; =# # = # B ; D>) ; =# # #B # ! ; # #B ; ?! # #? #B # K ;# @C8 ;# BC;@B # #B ; = = < # B?# E #B #B # DC; = ?! #B # @# ?! / ;8 L < =# ?! #B # # # #B # ! ;!# > ?! JC8> = # #B?C! = # (F BC= ; # < # =>=#> ! # > ; # = ! L ?; # ?! C@B = # ; # # D> = = # # ?= !;?<# #B # ; !K ?# # / ; D>#; # B?C8 # B KK = #? K; @B # => ?! #B # ! # BC;@B 88 == ;8>

0 + & &&% = ! ?=; # ?! #B # @?B ; # ?! (; %B?< # B! ?8 ?= ?! ;=?@" A = # (; %B?< # @@?8 ?= ?! % 88 @?C8#;>

SS % & + * ') # #B # ! ; # > ?! JC8> / = # #B?C! = # (F BC= ; # = # =>=#> ! # > ; # = =# T #B # / # # ?= A 8 = = # K; =# # #? B # L # # B AB ?< < ! ?= ; # = # #B # & # # # ?! / ;8 L < =# D> + < # 8 =?; # *! ?D 8 = # ;A ; # @@?8!?= # 8 E!C88 + CAB# ; # #? #B # @ !# (%B?< # @@ 8!?= ?! ;=?@" = # B! ; # K?;# ?= ; # ; # = # ; #?C; # #? #B # @ !# %B?< # 0?; # K ; = # (J?B= (B E ?!) ; =?@" (J = # +C=D ; ?! ?@B;C< = # %B?< # @@?8!?= >?C=A ; ?! 8@ !" # #B ; BC D = # !?; #B ; =# 999 ; # # A = # (%B?< # @@?8!?= ?! 8 ' @C8#; # (B E =A %B # 8D # #B > B # C=NC !# ?= D8 # ; AB# #? #B 0 = # = # &!# # # ?! ;=?@" = # /8 = # D =A B ; # ; # = # ; #?C; = < == ; D? 9 E; ## = 9 = # = K?! ! ?= #B ; ?! > # #B # (; %B?< # @@?8!?= ?! % 88 @C8#; # #B ; ?C =) ;9 # < = # CK?= <?!# <K#> = # = A= ! @ = # K; # # @ # ?! D # D =A B ; < 8 # @; # #B # / # # ?= ; # A; # #;?CD8 # 8D # #B # &!# # # E # = ; # 8A # = # EB = #B # ! # / # # ?= ; # ?D# = # # ! = 8 (=# =@ # D !?; # #B # 0?; # ?! (! ?= !# ; # !C88 B ; =A ?! 88 #B # @?C8 # D # 88 A # !?; B < B # A # = B KK 8 !;?< #B 7 (! ?= #? #B # & =A Q / ;8 < =# 8#B?CAB #B ; # E # =?# #B # 8 !# ?C= # =?; !B ?E !?; # = # B # "=?E =A K ;! @#8> #B # B # @?C8 # = ; < " # => =# A # D> #B # 4 KK 8 8 > ?! = # E?8 # =?# =! !# #B ; = ?! KC;K?! # #? " K #B # ! # K # # ?= ; # @?=# =C 8> = #B # ! ; # K; B =! ?= ?! # K;?@ # = # K = =@ # D> #B # # KK 8 # 2 B ; # 8D # K ;# # D # 88?E # #? KK 8 # > # @ ;# =8> # E?8 # D # A; # K; CL @ # = # =# A # #? #B # 0 A # !# #B ;

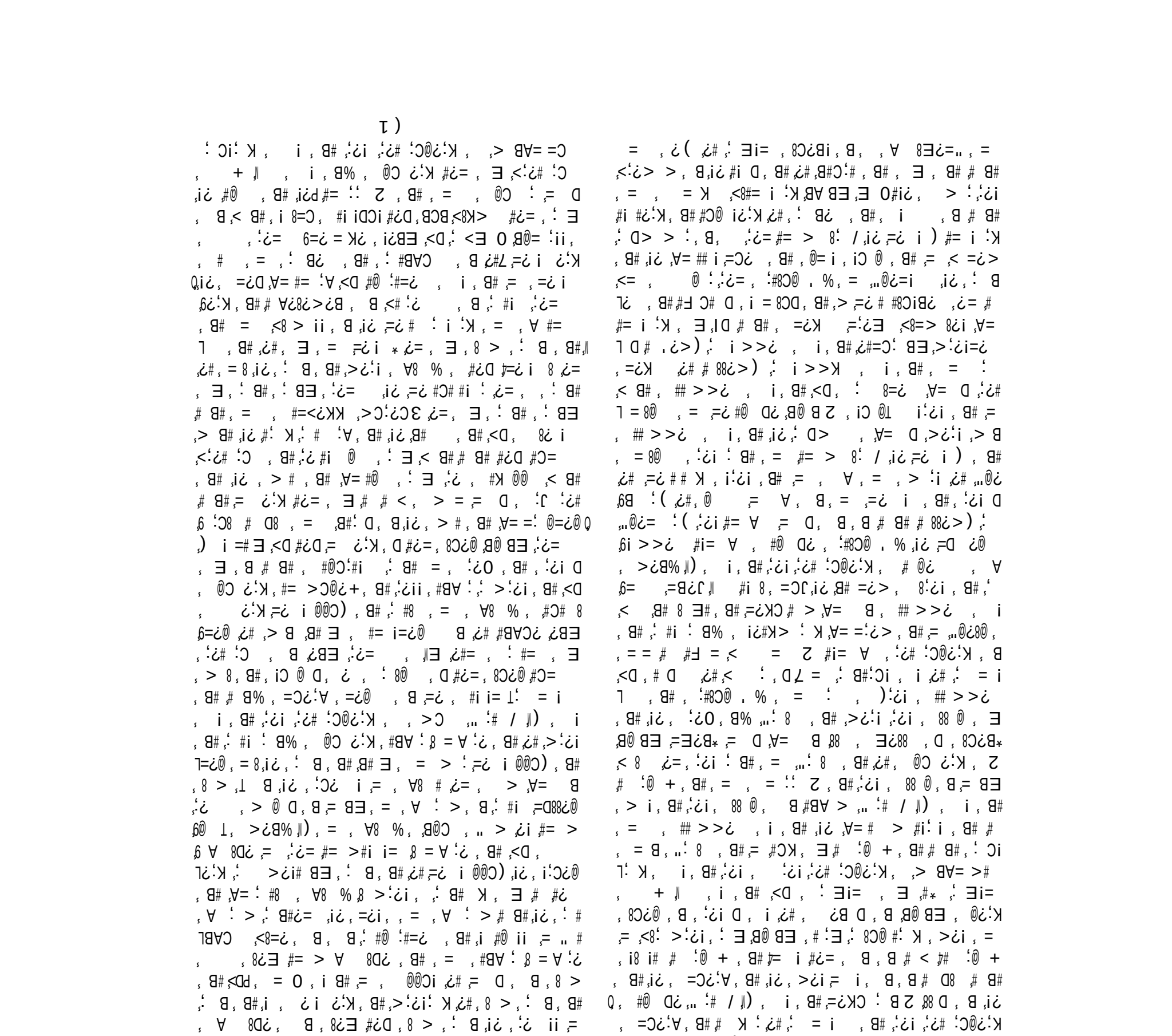
&!# # # = # =# ; !# # !# ?C8 # D # @?=# =C 88> " K# C= ; # C=@ ;# =#> D> KK 8 # # !8 88 D # = #B # KK 8 ; # K?E ; #? 8 # #B ! < = 8> @?=# !< 88> =9 C K =! # = # #B ; !?; # ; =A B #) ; @ # = # #B 4 B?=?C; D8 # &!# # # ?! / ;8 < =# E?8 # # " # #B # K; < ! # #? #B ;9 ?=! ; # ?= = #) ; =# E ;; = # #? @ ; # ; ! =A ; # # ;< # #? @ # # #B # # (%B?< # @ ?8!?= K ; ?= 88> ?; # B [E 88 =A B?C! # # % ' 8NC8#; # ?; ?#B ; K8 @ = !C88 !# B 5 @?C8 # =?# D # KK; B = # K ; ?= 8> #? @?<K ; D !?; # B #) ; @ # = # #B # * # &!# # # ?! / ;8 < =# # = @ ;# = > #? =! !# = #B # ! # KK 8 # E #B ;#! @ # @< !# B # ! 8A # = # =?# =! !# %B # B #) ; @ # = # #B # ! # &!# 4# # E?8 # @8 ; # #B # ! # KK 8 # ? # == # == ; = 88 # < # #B ; !# ; = # !C@B ?#B ; ;# ! @ # ?= # B #) ; @ # = # 0?; !# K # *B?C8 # #B =" ! ## # #B # # K # # ?= D ; # 2 B @B / # # ?= D =A ; # = K; =@ # ?! B # # # B AB ?< < ! ?= ; # = # #B # 8 # &!# # # ?! / ;8 L < =# = # #B # ! < = D = # B ; # = # ?=! ; # D> #B <# %B > A; =# # 2 ;; = # #? @ ; # ?; ! =A ; # #T ; < # #? @ # # #B # D? # A= # (%B?< # @@?8!?= !# B # E # E #B = JB # %?C= ?! & =DC;AB #? KK ; D !?; # #B <# #? =!E ; #? #B 4 # / # # ?= 9 = # #B # 2 #B = !?C##> AB# B?C; # E ;= =A = # !# 8! EB # # E #B = #B # 1 =AL ?< CK?= ! !# = > # 2 ;= =A ?=!?; < EB ; 9 ==#? J?B= < ; D> ;#C # ?! #B # D? 9 E; ## = E ;; = # # CK?= #B # (@ =# =#B > ?! > 8 !# D>K !# D =A ?= # !;> > K ! # #? #B # E 88 =A B?C! # ?! J?B= J?B=!#?C= K ; E A< " ; = & =DC;AB # #B # !??# ?! !?;; !# ; # 9E = # EB ; # B # ! # = # K "# #? 9#B # (%B?< # @@ 89 !?= EB? < < #8> @8?! # B <! 8! # CK = 9 B <L D ; = # D ; # #B # 8 # J?B= !;?< =# ; =A #B ; = !# ; # B # B # 8 ; 8 # < # ! ; # #B # # EB ;CK?= #B # ! # J?B= < # "=?@" ! F 8 L ; 8 "=?@" # CK?= #B # ??; ?! #B # ! # ;??< # EB ; # #B # ! # (%B?< # E 4 B # 8 !# = #B # 8?@"B?8 # ?! #B # ??; ?! #B # ! # ;??< # # !K88 @?KK>9!CD8D; D # D> #B # 8 # J?B= <# B <! 8! # ?= #B # 9!??# #B ;?! # D ; =A #B # E #= ! 7 = < # = # ! A= # ?= # K; 9 ! = # # #B # 8 ;> #B ;?! #? ?<K ; D !?; # #B # B AB ?C;# ?! / ;8 < =# CK?= %C > = F # #B ;9 # !# ; = # < # ;# ! @ # ?= ? B <# = < == ; = # 9@?=!?; <# #? #B # D? E; ## = E ;; = # 2 B @B F L @C# ?= CD!@; D # D> #B # ! # J?B= <# = # #E? E #= ! # E #B #B # !?;! # / # # ?= D =A CK?= #B # #E =#> ! ;!# > ?! #B # ! # <?= #B ?! > 8 !# 2 # = K; ! =@ # ?! B # # # B AB ?< < !9 ?= ; # = # #B # ! # &!# # # ?! / ;8 < =# = # ?=! ; # D> #B <# %B > < ## # #B # @ ! # # #B # ! # / # # ?= #? D # ?=! ; # D> #B # ?< < #L # # KK?>=# # !?; D ; =A #B # K ;# @C8 ; @ ! # CK?= / # # ?= # = # #? B ; D?#B K ;# # = # #B ; / ;?9 @C; # !! # #B ; = =# = # #? K?;# #? #B # / ;8 L < =# 0 " # CK?= #B # #E =#> (8=#B > ?! #BK 8 # <?= #B ?! > 8 !# #B # ! ?< < ## # #? EB?< #B # !?; # @ C! # E # ; < ## D 9=A < # = # !# ; ; =A ?! 9#B # B? E; ##! = / # # ?=

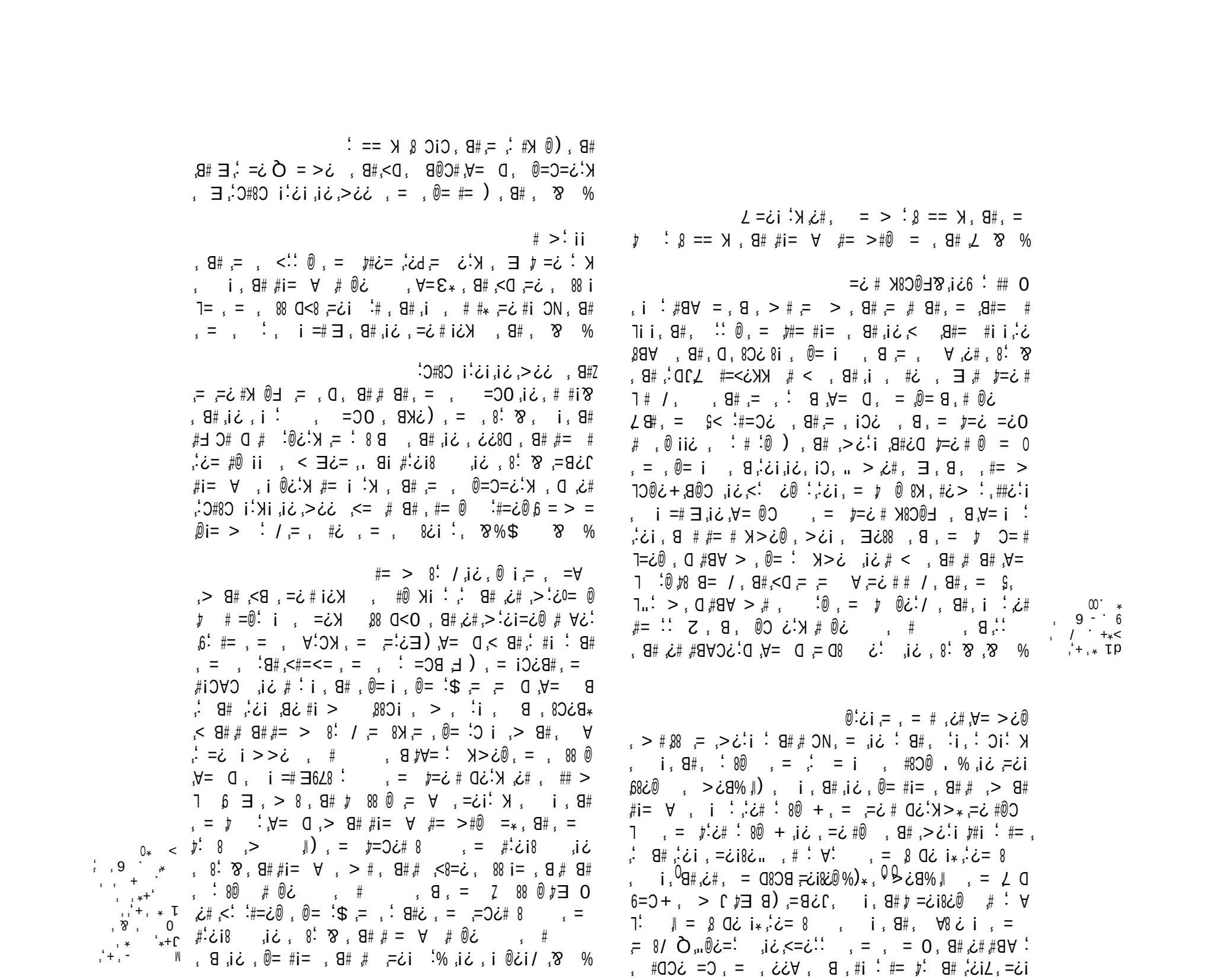
?BB

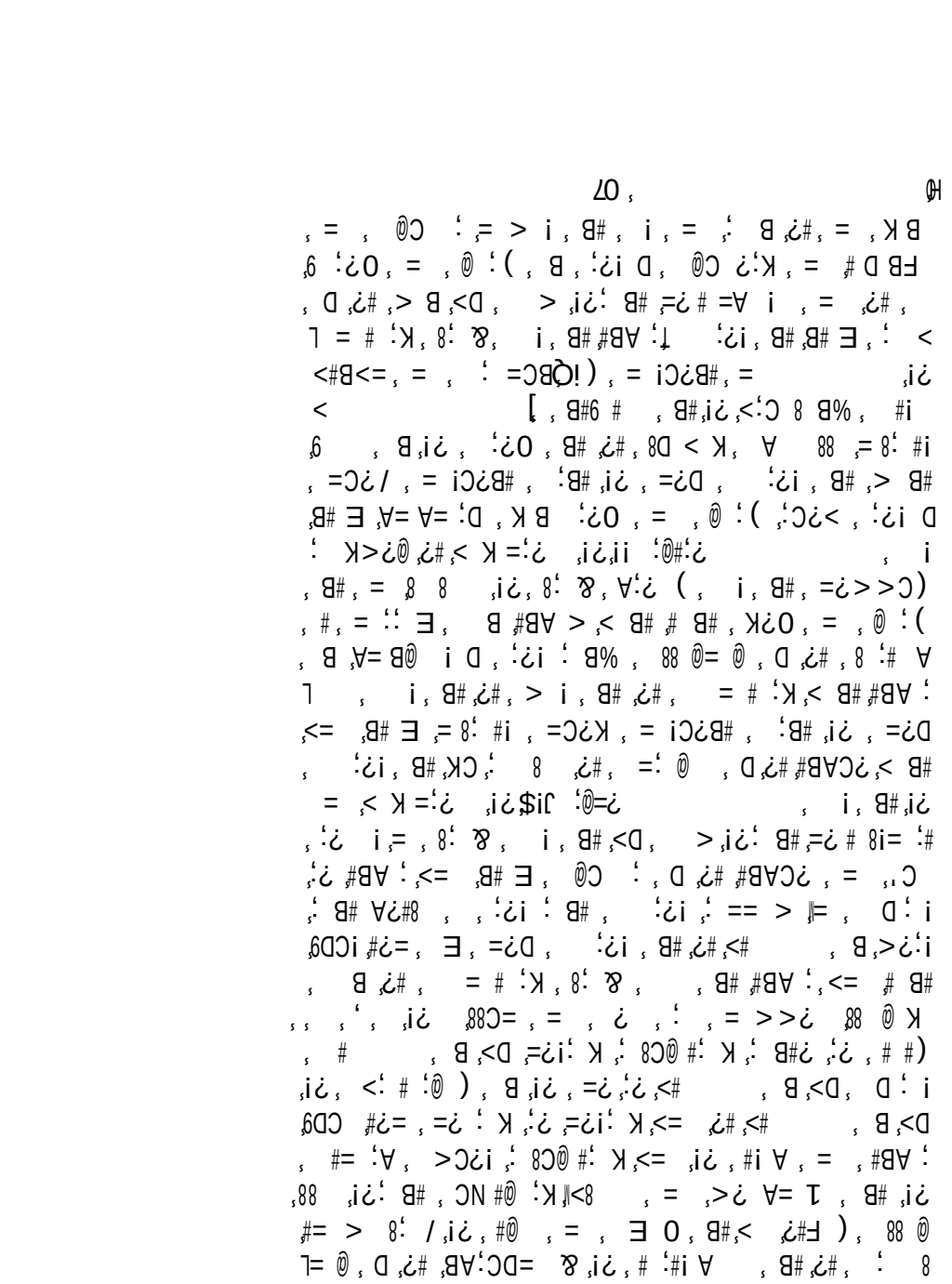
?B>

? ? , , @ , ,*=;

?= ' i;?<' @8 CI ' @ =' 8# ;' #B † C@@ i ?=' = '' #B ;' < =# ?=' D =‖< '?i'#B <' =;'#B ' ?=#; @#
i #8 < =#' ?i' =&i# # ' B?#' K8 =?D8 A < =#' ;?' E #B'
@ =i =#' ?i' B ' C; #?;' # ' =; ii D;C ;>' = '
#B?CI = '(F'BC= ; ' = 'i?C;#>'=>= '#?'#B 'O?; ' '
 8B =' ?i' @ ;'# =; ==C 8; =# EB @B' ' ,@8 ;'
K;?D # ?=' D?#B' ?i' B ' A ' = ' ?i' B ' < =?; #>' =;
#B ' > ;' = 9#BD i = ' (F' BC= ; ' = ' i?C;#>'
AB# EB =' B ' =# ; ' =#?' #B ' i?;i ' ?=#; @#
ii?; 8#B?CAB'#B ' F#; @# ?i' B ' A 'D 'iCii @ =# ?i'
#i 8i ' > # D =A' < = @C8 #D>' ' i@B ;A ' A; =#9' '
 'D>' B <' E #B' @?=i =# ?i' B ' C; #?; 'KCD8 @"'
Q "=?E=' K ;i?= ' EB @B' @B ;A '@?<K# =A'D @"'
‖ ? 'NC ; # E #B' B 'D ;#B' = ' < " 'B <' J *=?;'
#B ' # < ' ?i' #B ' ?=#; @# '#?'#8# ' @#'?i' C; L
#?;>' #B ' i = ' E ' ?KK?= ' = ' E ' @?<K ; '
E #B' #B ' ; @?; ' ' KK ; 'D>'#B ' + @; # EB @B'
E 'iCii @ =#' =' ; '# ;=' =# NC ' 8i?'#B ' =C#
†D??" < " =A' < =# ?=' #B ;?i' = ' 'ii @#?;>' A; =#L
 'D>' B <' = ' B ' C; #?; ' #?' 2 88 <' O =A@'
‖i#? =' B ' C<NB 88' ii #B ; ' (; =# = '#B 'i?; '
 i@B ;A 'A ?i' #B ' ==C 8; =# '#?' #B 'O?; ' 8B =
2 B ; ' # E ' A '#B # i'B 'B 'B ' C; L
E #B?CI = '(F'BC= ; ' = 'i?C;#>'=>= '#?'#B 'O?; ' '
 #B?CI = '(F'BC= ; ' = 'i?C;#>'=>= '#?'#B 'O?; ' '
 8B =' ?i' @ ;'# =# ==C 8; =# '#B '







```
                                                
```

?'?

D<7*#'E '@?=i =#8>'; 8> '?=' #B #'B ')'; @ '= '#B 'i &i5 # 'E?8 '=?# (Ci# =' K;?@ 'K ;'i?<C@B'# < ' 'E '= @ i ;>'i?';' ?# ?C' ?A= # ?=' 'E? 'D '; NC i # D i?; '#B 'i ' 'C@?8 'D ' # ;'<= ' =@ 'iiDC;'#B8>'%B ' ii ';'@?C8 'D ' # ;'<= 'D>'; # ?=';B '#B 'i ' E ?<' ?i' #B ' # ?=';B 'i ' #B' @# ?= 'i8 88' ' @#'?i'/ ;8 <=##B'# 88' 8 @# ?=' i8 88 D 'i ;i#D;?CAB#D i?;' = ' @ 'D>' #B 'JC A ' < =#(@?= 'R,$'/J < 'B 'i ;'#'*=7#B i 'E?;' g ' =#D 88'?i' ?<K8 =#'EB 8"'<'>'=?#D ' # ;L <=' '=/ ;8 <=#i?;' ;'@ Ci 'D 8?=A =A'#?' #B '@??<<?=' K;?i # ?i' #B ' 8<7*#' '?;' = ' #9#B 'i D 88'D ' F @C# = ' #';<= 'D>' #B 'JC A ' = ' ii @ ;'?i' #B ' ?C;#'EB?<'?' #B >'K ;'# ='?i' 0 E' QQ@' 2 B ;' #B '/ ;8 <=# +@8 ;'

‖ 0 ? ' ?!' B ' A !# ' # <' ?# ; < ## ' = ' B ; D>' < ## ' #B ' %?C= ' / # # ?=' ' #?' B ' < 8' ;! # ?= ' E #B' &= ' =!E ; 4 #?' #B ' 0?; ' ?!' (! ?=' #?' D ' !@C! ! ' D>' #B <' C< < ;8>' ' @@?;

%' !?;' &=@?C; A < =# ?!' /; @B ; ' # @ =# BC;@B ' D B?;#B' $?;#B

3' ' ' (& *) ' 0 +' ?= ; =A' %B # #B ; ' ; ' < =>' BC;@B ' @ =# CK?=' #B ' =?; #B' 8 ' ?!' #B ' 2 # ;' ?!' $?;#B' EB @B' @ =' =?# D ' !D?=' 8 A 88>' K8 =# 4 =?;' =' #B ' =# ; <' ?#B ;E > '9(CK9' K8> ' #B =' D>' #B ' /; D>#; ' =' EB?! ' D?C= ' #B >' 8>4 #B ;' <K8?> =A' !?< ' K; @B ; ' EB?' ; ' =?# ! #8 ' =' BC;@B ' #?' K; @B' =' #B ' ! ' 9 ‖' @ = ' BC;@B ' !?;' ?< # < 4 = ' #B # #B ' =# ;9' # = =A' ?!' #B !# /; @B ; ' ?C# ?!' #B ' ! ; # = ' ?!' #B ' @ =# !# K = ' ?!' #B ' / ;?@B ' #?' EB @B' #B >' K; @B' C; =A' #B ;' (; @ 4 ' <?!# K;?K ;' K ?C ' C!# E #B =' #B ' / ;?@B' %B ; !?; ' B ' #>' E #B' @ ' = ' @?= =# ?!' #B ' &!# # ' ?!' / ;8 < =#4 !?;' =@?C; A =A' ?!' #B ' ' /; @B ; ' !C ' #?' D ' 0 <K8?> ' D>' #B ' /; D>#; ' +?#B' B ; D>' + 9' # = # KK?>=# = ' 88?E' ?C# ?!' #B ' ! ;!# P = ' ?!' #B ' @ =# !# K = ' ?!' #B ' ; K @# ' BC;@B 4 #' EB @% ' #B >' !8 88' K; @B' D>' = # # ?=' ?;' KK?>=#9' < =#4 ?!' #B ' ; K @# ' /; D>#; ' E #B =' EB?! ' D?C= ' #B ' 8 < =' ?' 8>4 #?' ;>' ?= ' ?!' #B ' ! ' K; @B ; ' #E =#>' < ;" '!@?# '!?;'#B ;'K; @B =A' @B' 0?; ' >4 !?; =??=' = ' !# ;=??=' =' #B ' ! ' L @ =# BC;@B 4 = ' #B # EB #B ;'#B ' ! ' K; @B ; ' D ' <K8?> D>' #B ' ; D>#; ' #?' K; @B4 # ?= ' BC;@B' ?;' # ; 8 BC;@B ' D>' #C;= 4 E #B =' #B ;' D?C= 5 + @8 ; <A' B ; D>' ' % !# ! @ # C=L ;'#B ' /; D>#; ' B = 4 D ; =A' #B # C@B' ' K ;L ?=' B #B' CK?88 #B ;' = # # ?=' K; @B ' !# < =>' 0?; ' > ' # C@B' ' BC;@B' E #B =' #B ;' D?C= 4 ?;' # C@B' = ' C@B' BC;@B ' E #B =' #B ;' D?C= ' D>' #C;= 4 !8 88' D ' (C!! @ =# K;?D # ?=' #B ; ?!' 2 B ; CK?=' #B 7 ! ' K; @B ; ' !B 88' D>' ;#C ' ?!' #B ' K; ! =# @#4 B ' K?E ;' = ' C= ?CD# ' ; AB# #?' 8! ' < =>' #E =#>' < ;" ' ?C# ?!' #B ' ! ; # = ' ; !# ?!' #B ' @ = ' !# K = ' ! #B ' ; K @# ' / ;?@B' BC;@B 4 ' #B ' ! ' ;# ! @ # ' !B 88' D ;' #B <' #?' B ' K; @B ' 0?; ' > ' #B ; #5 = ' !?;' K; =# =A' #B ' #;?CD8 ' = ' FK =! ' #B ' ! ' K; @B ; ' E?8 ' D ' KC# #?' =' ; @? ; =A' K >< =# ?!' #B ' ! ' 88?E =@ ' B ; D>' A; =# ' !$; =A' # ' #B ;' (; @ 4 !' @B' ?!' #B <' !8 ?C8 ' KC;!C ' !?;' ‖#B ;' ?E=' K ;#4 ?C# ?!' #B ' K ;# @C8 ;' @ = ' !# L K = ' ?!' #B ' ; K @# ' BC;@B ' # EB @B' #B >' !B '' K; @B' ' #>' E #B' @ ' = ‖ ?= =# !?; ' + ?#B' B D>' <K?E ;' #B ' ; K @# ' /; L D>#; ' E #B =' EB?! ' D?C= ' #B ' ; !K @# ' @ = ' BC;@B ' ?' 8>' #?'); =#)?<< ! ?=' #?' !C@B' K ;9' !D=' ' #B >' !B 88' #B ='' ! ## !?;' CK8 !# =A' 8! ' <C@B' ?C# ?!' #B ' ! ;!# = ' ?!' #B ' @ = ' !# K = ' E #B =4 #B ;' D?C= ' EB ; ' #B ' ! ' K; @B ; ' !B 88' ! ; ' #

#B ;' = # # ?=' ' E '' K >' = ' # !>' #B ' ! ' 88?E =@ ' B ; D>' A; =# ' #?' #B ' K ;!?= ' = # ' D>' #B <' #?' K; @B' #B ; #4 @@?<K# =A' C#' CK; ' !?;' @B' 0?; ' > ' (; @ 5 E #B' /?E ;' #?' #B ' ! ' $ @#?; ' #?' CK8 !#4 = ' !' = ' D ' #?' KC;!C ' !?;' #B ' ! < ' D !?; ' #B ' JC A ' ; = ;>' ?!' #B ' D?C= ' + @B ;A =A' 88' ?@ # ?= 4 ' 8!?' (C!K =! ?= 4 ' CK?=' ?=! A= # ?=4 = ' E #B' #B ' + @8 ; L # ?=4 #B #' !' #' #B ' ! @C! =A' ?!' #B ' (C K =! ?=' #B ' 0 ## ; ' !B 88' D ' !?C= ' ?; ;8>' K;?@ 4 #B ' E;?=A?C ' (C K = ;' !B 88' D ' + @ ;= ' =' ' ! !#B' K ;#' <?; 4 EB @B' !! @#?;' B 88' D ' ?D8 A ' #?' @?<K# #?' #B ' ! ' K; @B ; 4 EB?' !B 88' D ' <K8?> ' D>' #B ' /; D>#; ' !?;' #B ' ! ' 88?E =@ ' #?' D ' CKL 8 !# ' D>' #B <' @@?; =A' #?' #B ' =C<D ;' ?!' > ' #?' D ' @?=# = ' =' #B ' /; D>#; ' ;# ! @ # 0 " ' B ' #>' E #B' @ ' = ' @?=! =# !?; 4 !?;' =@?C; A < =# ?!' #B ' ! ' !!#@#?; ' !?' #?' D ' K9' K?>=# ' D>' #B ' ' /; D>#; ' = ' !; > =A' #B ;' &FK =! ' +? 'B ; D>' 88?E' #?' ;>' ?= ' ?!' #B ' ! ' $ @#?; ' ' <C@B' ' @?;; K?= ' #?' '# =#B' K ;# ?!' #B ' ! ' 88?E =@ ' EB @B' #B >' ; ' #?' CKL 8 !# !C;#B ;' !?;' #B ;' ?E=' C! 47?C# ?!' #B ' ! ; # = ' ?!' #B ' ! ' @ = ' !# K = 4 = ' E #B' #B ' D = ! # ?!' #B ' K;? ! ?= ' D? < =# =

%' = =# #B ' ! ' ?!' ==C 8' ; ! # ' C ' D>' / ; ?= ' !#?; ' = ' = =# #B ' ; #?; 7' 8 A =@ ' #?' D ' C! ' A =!# #B =

$ (' ' ' D>' #B ') = ; 8' @#' 1 !@ !9' ' ?;>' ?!' ! = ' = ' !?;! C8#C; ' =' #B ' @C;; =# / ;L 8 < =#4 #B ' ?= ; # ?=' ?!' #B ' ! ' #B #' E '#?' D>A?= ' ==C 8' ; =# ' C ' D>' #B <4 = ' !' #B ' < ' ?CAB#' #?' D ' A; =# '#?' #B ;' C# ?= ; ' = ' E B #' # < ' 8 A =@ ' !B?C8 ' D ' CK ;! ' A =!# #B <' !?;' K >< =#' ?!' #B ;' K; =@ K 8' (C< ' = ' C@B' =Y' =C 8' ; =# ' #?' EB @B' #B >' E ; ' #?' D ' 8> D8 ' E ' ; < ## ' #?' #B ' ?<< ! ?=' ?!' ! = ' = ' !?;! C8L #C; ' #B ; =' = < 4 #B #' #B >' < AB#' ; K?;#' #B ;' ?K = ?=' #B ;?!' #?' #B ' / ;8 < =#4 EB @B' ' =?#' > #' ?= 5 = ' #' D =A' #B ' =# ; !#' ?!9#B 9K ;!?= ' ; !#?; ' = ' #B ;' ; #?; ' #?' B ' #B ' ! < ‖=?E' # ;< = Z'%B ; !?; ' B ' #>' E #B' @ ' = ' ?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# ' = ' ; = ' #B #' C; =A' #B ' # < ' #B ' K ;!?= ' ; L !#?; ' D>'#B ' K; ! =#' / ;8 < =#' E ; ' +, -. - - +' ' #B ;' &!# # 4 #B >' = ' #B ;' C# ?= ; ' ; ' #?' D ' !; ' ?!'#B ' K >< =#' ?!' ==C 8' ; =# 4 C=8 ! ' #B #' #B ' K ;#>' !#?; ' #B ;' B #B'; @? ; ' 88' ?;' ! < ' K ;#' ?!' B ' ; =# ' !;?<' EB @B' ! ' E ' F@8C ' D>' #B ' !?;! C8#C; 5 *=' EB @B' @ ! ' #B ' K ;!?=' ; !#?; 4 = ' =?# #B ' C# ?= ;' !8 88' D ' 8> D8 '#?' #B ' K >L < =#' ?!' #B ' ==C 8' ; =# '7 C; =A' #B ' # < ' ?!' B ' D =A' ! K?! !#4 =' !?' ! ;;' ' B ' D #B' ; @? ; ' #B ' ! < 4 ?;' ?#B ;E > ' #B #' #B ' K ;#>' ; !#?; ' < >' ; @? ;' 88' ?;' ! < 7' K ;#' ?!' #B ' ! ' ; =#' C ' C; =A' #B ' > ; ' #B #' B ' E ' ! K?! !#5 *=' EB @B

?'*=;

@ ! #B K ;#> !#?; *B B =? ! ?! =>
D>A?= == C ; =# B?# CK?= B ! A= =A
#? B ; #?; E #B E ;; = @ !;?< B ?E=
! @# = 4 => @# ?= @?<K # =# #? B < !?;
; @? ; =A 8 ?; => K ;# ?! #B ! ; =# C
C; =A #B # < ?! B D =A ! K?! !#5 + @8 ; =A
88E > #B # EB = C# ?= ; !?; K ;!?= ; g
!#?; @#C 88> K > E #B?C# ?88C ?= D !?;
#B ?8C# ?=4 #B ; K; =@ K 8 !C< ?; D>A?=
==C 8 ; =# 4 ?; => K ;# #B ;?!4 ?; B B 0 =
C A #B ; !?; D !?; #B ! ?8C# ?=4 ?!
B =A A = D?= ?; C!! ; + @; # D !?;
#B ?8C# ?= B #B < K >< # ?; B B
0 = C A 8 =@ #B ?8C# ?=4 #B !?;
! = D = ! # A; =# = ! ?; ?! #B K ; ?=
; !8?; 4 e =? E > #? D ?D#;C A =!# #B
C# ?= ; = #B # @ 8 ? # B ; D> (# #C#
= ; = %B # EB ; K ;!?= ; !8?; B
< K >< =# ! =@ #B ?8C# ?= ?! => ==C 8
; =# !?; #B ! > ; C; =A EB @B #B > E ; ! L
K?! !# ?! #B ; &!# # # !B 88 D 8 !C< !?; #B <
#? ; # = < C@B = #B ; ?E= B = ?! #B K; =L
@ K 8 !C< = ==C 8 ; =# > # ; !# =A4 FL
# = #? #B !?; ==C 8 ; =# !C K > D> #B <
X#B ==C 8 ; =# C=K > D =A 8E > !@?C=#
= #B ! ;!# K8 @ = EB ; #B D# 8#?A #B ;
K > #B K ;#> ; !#?; !B 88 D> ;#C ?! #B @#
B @# ?= ?! K # # ?= A =!# B ; #?;4 !?;
; !?C= =A #B ! ==C 8 ; =# K > ?C# D> B <
!?; #B > ; C; =A EB @B B E F@8C !;?<
#B K?! !# ?= ?! B &!8 # D> #B !?;! C8#C; 4
0 " B [% E #B @ = ?=! =# !?;
(# #C# Q ; = 4 %B # # !B '' D 8 !C< #? #B
; #?; ?! K ;!?= ; !#?; D> #B / ;8 < =#
#? !! @# #B D #?; &!# # !?; K >< =# ?! #B ;
K; =@ K 8 !C< = =C 8 ; =# ; !# =A X F@ K# !C@B
==C 8 ; =# 4 EB ;?! #B > ; 8 D ; # D> #B K; ! =#
@# = #B # << #8> !?;#B = !# ; #B # #
B ; ?!4 + @B ;A =A B ;D> 88 K ;!?= 88 F @C# ?=
A =!# #B K ; ?= ; !#?; !?; K >< =# ?! =>
K; =@ K 8 !C< C D> #B <D !?; #B ; !?;! C8#C; #
88 2 B # C= > = F# #? @?< = =# #B > ; ?!) ?
= #B?C! = (F BC= ; = !?C;!@?; ! FZ# =
> ; g !# ; EB @B 88 K ;!?= 88 8 A =@ 9!B 88 D
@?<K # =# A =!# #B K ;!?= ; !#?; 4 C=8 ! #B >
K?= = KC# #B ; #?; =K?! ! ?= ?! g
<C@B ?! #B ; &!# # XEB ; ?! #B ; #?; #C
B B 8 @# ?= F@ K# #? #B ?C! K ;"' =
< = `; E 88[# !> #B K; =@ K 8 C< = =L
=C 8 ; =# ; !# =A4 = =?# B ; D> A = ?C= #
#B ?T B ; ; # ?! #B ?C=#; > EB ; #B 0 =
8>4 = #B # !; ?! =@C<D ; =@ 4 EB @B #? D
?= # #B ! AB# ?! #B 0?; ?! (! ?= = (C g
K =!#?=4 #? D ; ! D> #B K ;!?= ; !#?; 4 CK?=
#B ! ?!! ; ; < D8 = ;#B 8 ! E #B = #B
K @ g ?! ! > ; !?; K >< =# ?! EB # ; !# =A
?! #B ; #?; D#4 !@?C=# =A B *=#;?< !g
?= 5 = @8 ; =A 8E > #B # B?E !??=g #B
; #?; !B 88 D F@8C !;?< *B K?! ! ?= ?!
#B 0 = !C #? D K?= #? B ;= D> #B

K ;!?= ; !#?; 4 # !B 88 D 8 !C< #? #B ; #?;
<< #8> #B ; !# ;4 #? C! 88 < == ; ?! 8 L
A =@ K ;!?= 88 = ; 88 !?; ; @? ; =A ?! B D#
!?; EB @B #B 0 = E ; K?= #? B < 0 "
B #> E #B @ = @?=! =# !?;! (# L
#C# = = ; = %B # EB ; K ;!?= ; !#?;
?!! ; =A #? + K?= B 0 = #? B ; #?; 4 @ =L
=?# KC;A = DC; = #B 8 = ?!! ; ?!; 8
4 =@C<D; =@ D> #B AB# ?! #B 0?; 4 = KC#
#B ; #?; = #B !; K?! ! ?= #B ; ?!4 !C #B #
B E ' D 8> D8 #? #B K ;!?= 8 8 A =@ ?! B
; #?; ! # ; 2 B # C= > = #B?C! = (F
BC= ; = !?C;!@?; (F# => ; 4#B # #B = !
B < = #B D = ! # ?! ! ? D?=?;C<4 #B
0?; ?! #B (! ?= ; B ; D> 88?E #?; A; =#
#B ! < #? B <' CK?= B @ 88 =A ?! B ; #?; ;
= < " =A ! #B Q K?= =A = #B @?<<?=
!?;<' E #B?C# = @ ! #> ?! B D =A <K; !?= #B
< ?! ; ! =A ?; ?D# = =A #B ;?! ?; ?! E ; =A
#B B D #4 !# ; ?D# = =A ?! #B < = 8 " g
E > # B ; D> + @8 ; %B # EB ; => K ;L
!?= C; =A #B ! # = =A ?! #B ! !!?;! #C; =?E
; !@ = @NC ; => D# C D> #B K ;!?=
; !#?; #B > !B 88 B @# ?= ' == ;8> A =!#
#B K ;!?= ; !#?; !?; #B !?C< #;C8> K > ?C# 0
D> #B <' = ==C 8 ; =# #B ;?! = !B 88 8?! 88
D = ! # ?! #B ; ?<K?! # ?= = ! = B g
#> = #B &!# # ?! / ;8 < =# +? B # D>
; < ## #B @ ! ?! #B @ !# 2 88 <' C; ?!
8 E 88 !?; ; K # # ?= ?! D>A?= D# = 88g
?#B ; @ ! ?! !?;! C8# K ;!?= ; !#?; K =
D !?; #B <' #? D # ;< = D> #B 0?; ?!
(! ?= F@ K# =A C@B @ ! EB ; = ; K?;# B
D = K; K ; D> #B ?<< ! ?= !?; ! = =
!?;! C8#C; !?; #B / ;8 < =# *= EB @B #B KC;g
!C ; < > # B ?K# ?= !C;#B ; =! !# # ' #B @ g
! ?= #B ;?! D !?; #B / ;8 < =# ?; 0?; ?!
#B (! ?=

%= =# #B =#

' (& *) 0 + ?= ; =A #B #
D> #B @# ?! / ;8 < =# = #B?C! = (F BC=L
; = & AB#> (F *=# #C8 @# = =# =
BC<D8 ?!! ; #? B #> !?; = <K?! # ?= CKL
?= @ ;# = ?<<? # !?; !; > =A #B FK =!
?! ! ; ? = A 4 = ?#B ; < ## ; ; 8 # =A #?
#B g =#5 %B !?; FK =! ?! !; ? = A 4
= ! ; 8 < ## ; ; 8 # =A #? #B * * =# E ; =L
! #8 4 B?# = #B ; !? K ;! @#8> =?; !? !C88> FK ; =@ D #B ! =@ @? ; 4 B?# #B # #B ; !# 88 = = K8 @ !?; !C;#B ; ; AC8 # ?= 5 + ?#B #B ; !?; E #B @ = @?=! =# ?! #B &!# # ?! / ;8 < =# (# #C# = ; =4 #B # =?#E #B9 !# = =A #'D ; @?<< = D> #B ! @# #? #B 0?; ?! B !# / ; > ?C=@ 84 #? #;> D> #! 8! !# =@#8>4 = #B # #E @ ; > ; = *= #B ?= #B JC8> = + @ <D ; > ;8>4 > #

' ' '*=;' ' ?'

=A' #B ' !?; ' !# =@# #;> 8' ?!' ;>' J?C;= 8' B #B' D =' !?C= ' D?#B' ' # ?C ' = ' CK ;!8C?C ' 8 D?C;4' = 9' ' =?#' K; @# ! ' =>' EB ; ' 8! 4' #' !8 88' D ' 8 !?<' !?;' #B ' ! ' O?; ' ?!' B ' !# ' / ; >' ?C=@ 84' #?' < " ' #B ' ' #;> 8' D> C@B' ' #B ;' =C<D ;' ' #B >' 8B 88' #B ="' ! ##4' =?#' ?!' ;>' J?C;L = 8' ?!' ? =' D>' #! 8! ' !8 =@#8>4' DC#' D>' # " =A' = ' < " =A' #;> 8' ?!' =>' ?= ' ?;' <?; ' =A8 ' J?C;= 8 4' ' #B >' !8 88' #B ="' ! ##4' = ' #B =' #?' @ C! ' < 8#' ?C=' =' ?= ' ! ' ?;' O A= #4' #B ' ; !#' ?!' #B ' J?C;L = 8 ' #?' D ' #' #B #' # < ' #; 4' ; ' #?' # " ' =' ! >' ?!' #B ' ! ' !?' < 8# ' ?C=' ' ! ' 4' EB @B' !8 '' !# = ' !?;' #B ' EB?8 4' DC#' K; C @ ' 88E > ' #?9' #B ' ! ' O?; ' ?!' ?C=@ 8' #?' < " ' !# =@#' #;> 8 ' ?!' #B ' B '' !?; ' J?C;= 8 4' ' #B >' 8B 88' ! ' @ C! 5' ' !?' !# 88' ; @?<< = =A' #?' #B <' #BK' F @#' #;> 8' ?!' 88' < ## ; ' ; 8 # =A' #?' #B ' ? = A 4' #' #B ' !?;9' ' #E?' # < ' D? ' K @ !> 4' =' < ; = ;' < =L # ?= ' =' #B ' ! ' @#4' ; ' #B #' =?#E #B!# = =A' ?!' #B ' !?;! ' @#4' EB @B' ' ==? #' =' !?' ! ;;' ' #B ' !' < ' ' =@?=! !# =#' E #B' #B ' K; ! =#' @#9

%' = =#' #B ' 3C?;C<' ?!' #B ' ?<< ! ?=' !?;' /8 =# # ?=' ?!' 1 ;" ' Q' 8C # ?=' ?!' % =

SG' ' ' (& *) 19' 0 +' #B ' 1 =A ' 9 L #>' @?= ; =A' #B #' #B ; 7' ; ' < =>' @# ?= ' L K = =A' D !?; ' #B ' 0?; ' = ' ?#B ; 7' ?C < 9' ?= ; ' !?;' /8 =# # ?=' ?!' 1 ;" ' = ' 8C # ?=' ?!' 0 % = 4' E& @B' @ ==?#' D ' @ ' = ' # ;< = 4' =' ! K @#' #B #' #B ' (' ?#=< ! ?= ; ' B ' =?#' < #' !?' !; NC =#8>' ' 5 *= @ ! ;>4' D>' ; !?=' ?!' #B ' !88@C8# ' ?!' A ## =A' ' 3C?;C<' EB ; D>' #B ' 0 A ' B ' D =' <C@B' K; C A 5' $?;' ; < 79' ; A' EB ;?!' C;' (? ; A=' 0?; ' E #B' @ 4' = ' @?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#4' (# #C# ' = ' ; = ' #B #' =' ?<< ! ?= ; 7' EB ;?!' ?= ' ?!' ;>' (# # ' 8B 88' D ' ' C!! @ =#' NC?;C<9EB?' =A' K; =#7' #' #B ' ?C=' ## =A' = ' @?=!# #C# =A' ?!' #B ' < # =A5' #B ' E #B ; E =A' ! ?= ' ?;' <?; ' ?!' =>' ?!' #B ' #B; ' !# # ' !# ;' @?=!# #C# =A' ?!' #B ' < # =A' 8B ''=?#' D; @B' #B ' 3C?;C<4' (=' ?!' #B ' ?<9' < ! ?= ; ' ?!' #B ' ?#B ;' (# # '?;' (# # ' D =A' 88' K; ! =#4' E #B?C#' K; C @ ' #?' #B ' !! @ ; ' ?!' (# # ' #?' D ' !# '' < <D ; ' ?!' #B ' ! ' ?<< ! ?=4' #B?' #B ' K; ! =@ ' ?!' ?= ' ?;' <?; ' ?!' #B <' D ' =?#= @ !L ;>' #?' @?=!# #C# ' #B ' !?; ' 3C?;C<' = ' B ' L #>' E #B' @?=! =#' !?; ' +? ' B ; D>7' # !>' = ' K;? ' #B ' #E =#>' !?C;#B' @#' ?!' #B ' !?C;#B' (!' ' ?=4' = ' #B ;# #B' @#' ?!' #B ' (@?= ' (! ?=' ?!' #B ' @C;; =#' / ;8 < =#4' =' #B ' B '8' B ' ;# @8 ' = ' @8 C! ' #B ;?!4' F@ K# =A' =' !N' ! ;;' ' #B ' ! < =' ' ==? #' D>' #B ' K; ! =#' @#5' = ' #B ' ! ' ?<< ! ?= ; ' ; ' B ; D>' KK?>=# ' #?' < #' ;>' 2 = >' =' #B ' !# ;=??=4' C; =A' #B ' ## =A' ?!' #B ' (! ?=

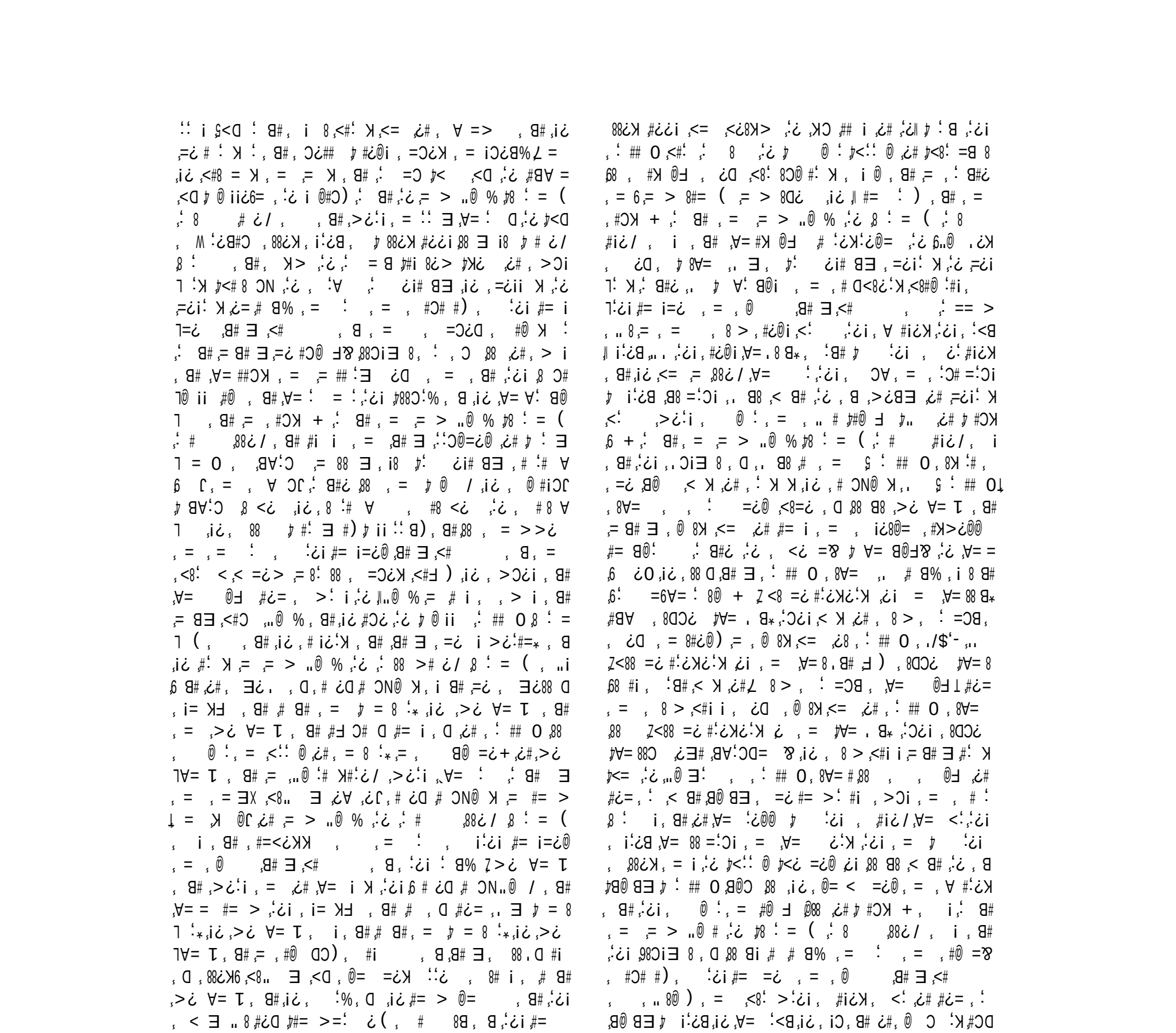
' ' ?'

%' = =#' #B ' + C#>' ?=' (@?#' C 8 =

' ' (& *) ' 0 +' E #B' @ ' = ' . ' ?= =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# ' = ' ; =' #B #' =' '' # < ' @?< =A4' '' C 8 =' K8 =' ?;' #; K#4' ?;' <; @"' = ' '' ?;# ' ?!' 0 = =' C= ;' EB #!?< ;' = < ' ?;' + A= # ?=4' ; C! @#?; ' E #B =' #B ' 1 =A ?<' B 88' #' #B ' &FK?;# =A' #B ;?!' K >' C #?<' ?=8>' ' (@?#'90 = =' @?=!?;<' #?' #B ' ??"' ?!' #

%' = =#' #B ' / ? #' !! @ ||

' ' (& *) ' 0 +' ?= ; =A' %B #' (*' !?;' #B ' < =# = =@ ' ?!' <C#C 8' ?;; K?= =@ 4' = ' K; =# =A' ?!' < =>' =@?= = =@ ' #B #' B KL K =' D>' K; #' / ? # 4' ; 8' KCD8 @"' / ? #' !! @ ' B ' D =' B ; #?!?; ' ; @# 4' !?;' @ ;;> =A' = ' ; 9' @ =A' ?!' 0 ## ; ' D>' K?88 ' #?' = ' !;?<' <?88' K ;# ' = ' K8 @ ' ?!' #B ' 1 =A ?<4' = ' #B #' #B ' E ' ' ?;L ; =A' #B ;?!4' ' ' = ## ;' ?!' A = ; 8' @?=@ ;=4' = ' 0?!' A; #' =# A 4' ' E ' ' !?;' #B ' ?= = =@ ' ?!' %; ' = ' ?<< ;@ 4' ' ?#B ;E > ||5' = ' #?' #B ' = ' #B #' K >' = ' ! ' K #@B ' < >' D ' B 4' = ' #B #' #B ' B !#' < = ' !?;7' #B #' = ' E 88' D ' #B (# ' =A' = ' &!! D8 8B =A' ') = # 8' / ?88' !! @ Z' %B ; !?; ' B ' [P E #B' @ ' = ' @?=! =#' ?!' #B ' &!# # ' ?!' 0 ;8 < =#' (# #C# ' ; = ' = ' K9' K?>=# ' =') = ; 8' / ? #' !! @ ' #?' D ' " K ' E #B =' #B ' #>' ?!' || & =DC;AB' !! ;?<9 91-74-' 88' 0 ## ; ' = ' / @"NC # ' EB # ? ;' < >' D ' E #B' K ' = 4' FK # ?=' =#' ;##?' =>' K ;#' ?!' #B ' 1 =A ?<4' K;' =>' ?#B ;' ?!' B ' # ' +?< = ?= 4' ?;' =#?' =>' 1 =A ?<' ?;' ?C=#; >' D >?= ' (' D>' ' / @NC #' #B #' A? ' 8 ' !?;' O?= ?=4' ' EB @B' ' !! @ 4' 88' ; #C;= ' = ' =!E ; ' < >' D ' 8 " E ! ' ; @ 5' ' 'D' #B #' ' # ;' ?!' #B ' ') = ; 8' 0 ## ;' ?!! @ ' 8B 88' D ' !;?<' # < ' #?' # < ' KK?>=# ' D>' B ' #>4' B ' B ; ' = ' (C@@ ! ?; 4' D>' 0 ## ; ' / 94' # =# ' C= ;' #B ' / ; >' (8' ?!' #B ' 1 =A ?<4' D>' #B ' = < ' = ' # #8 ' ?!' ' # ' / ? #' # ;' ||) = ; 85' ?;' ?#B ;E > ' #B #' #B ' ! ' !! @ ' #= >' D ' ! #' =' % @"' D>' #B ' 0?; ' ?!' B 7' # ' %B 9' ! C;>' = ' &F@B NC ;' ' B ' #>' = ' B ' ' (C@@ ! ?; ' 8B 88' #B ="' <?!#' FK =#Z' = ' #B #'] #B ' ! Z' ## ;' ?!' #B ' ! ' !! @ 4' ?;' % @" < =' !?;' #B ' # < ' ; K @# 8>4' = ' B ' + KC#' ?;' + KC#' C#B?; W ' >' B <' !?;' #B #' !! @#T = ' B ' = ' #B ;' (; =# ' = ' =?' ?#B ;' K ; ?=' ?;' K ;!?= ' EB #!? ;4' 8B 88' !;?<' # < ' #?' #"= ' B ' #B ' ; 9' =A4' # " =A' CK ' ?;' ?; ; =A' + K #@B =A4' = 9' ' =A' / ? # ' E #B' K 4' = ' 8 ; =A' ?!' '' 0 ## ; ' = ' @NC # ' EB #!? ;' EB @B' 8B '' !;?< < ' # 4' # =b ' D ' ! =#' #?' = ' !;?<' '' = ' ;>' #B ' K ;# ' Q' K8 @ ' ?!' #B ' 1 =A ?<' #?' = ' !;?<' B ' !# ' +?< = ?= 4' ?;' K8 @ ' D >?= ' (4' EB ; 4' B ' 8B 88' ! #8 ' ?;' @ C! ' #?' ' ! #8 ' K?!# 4' ?;' ;C== =A' ! <9



; @# =A ?!' #B ! =C! @#?;> = =# < # ?= #B ;?!' #?' [#B 0?; ?!' B # %B ! C;> C= ;' #B K =' ?!' =' BC= ; #D' K?C= (@?# <?= >' ?!' #B 8<' !?;' @B' D; @B' ?!' #B K; ! =# @# #B ?= B 8! #?' D K > #?' B #>' = #B ?#B ;' B 8! #?' #B *=!?;< ;' KC;!C ;' !?;' #B ! < = 8 #8>' =' ! A ; #B # #B ! J < 0> '' #?' B # @?=! ; B8 @B ;A !?;' #B DC 8 =A' ?!' 8=' = !?;' D; =A =A' B?< E?;" < =' #?' #B 0 8 E?;"' !?;' ! ## =A' CK' #B =C! @#?;>' ?!' #B 1 DD # = ;P8" = #B # #B K; ! =# @# #?' #B !?; 8 D ;# K; 8 A =U' <<C= # B ; D>' A; =# 8B 8' @?=# =C #?' #B ! J < 0> 8' ?!') ; =' B B ;' = ! A= !?;' #B K @ ?!'=>=# ;' > ;' !# ;' #B # B ; ?!'!?;' #B ! >8 4 ;' = DD # *" ; =C! @#?; = D @ C! #B J =#4' B <K4 = ; K ! ?>8 =C! @#?; E = ;' D !?; ; @# =' #B 1 =A ?<' = #B # #B C= ;# " ;' <C8' = @ ! ;8>' D # A; # K = 9 = FK =! %B ; !?; B #>' E #B' @ !?; (# #C# = ; =#B # B 8B 8' B #BK' !? K?E ;' = K; 8 A !?;' < " =A4#B ! < !?;' #B K @ !?;9' = #B # # 8B 8' =?# D 8 !?<' C; =A' #B # K @ !?;' =>' ?#B ;' K ;!?=' ?;' K ;!?= #?' < " 8 =#4' B <K4 ?;' ; K ! ?>8 E #B =' #B 1 =A ?<' K;? =A' #B J < 0> 8' ?! ## CK' #B ! =C! @#?; B #C F# = ;# < = #B?C! = (F' BC= ; = =>=#>' (F' 8!?' #B # #B ! K; L =# !8 8' D E #B?C# K; C @ #?' #B <K?;# # ?=' ?!' #B ! %' -' = B ## !;?<' !!?;; A=' K ;# D>' ;@B =# #B >' B D =' =' C! #?' ?' D !?; #B < " =A' B ; ?!' 0

%' =!! ?; ?!' (;' 8 F = ;' ?K ?!' 1 ;! Q' B ?K ;#= ; !?;' &; @# =A' =C! @#?;>' ?!') C=' /?E ;' K ' ?<

8<) ' (b *) 0 +' ?= ; =A' #B A; # =@?C; A < =# ?!! ; = A =' !?;' #B &; @# =A' ?!' =C! @#?; D>' ; 8 @# ?!' / ;L 8 < =# K @ 8>' D>' #B @# = #B?C! = (F' BC= ; = (F8 ?= &=# #C8 @# !?; &; @# =A' ?!' =C! @#?; = #B @# = #B?C! = (F' BC= ; = & AB# ?= &=# #C8 @# !?;' =9' ?C; A =A' %; = =C! @#?; = #B # =' K ;!C ; @ #B ;?!' = CK?=' #B FK ; =@ 4 D = ! # = =# A ; ?C= =A' #B ; D>' #?' #B 1 =AL ?<' / ;# @C8 ;' @# ?!' / ;8 < =# B D =' < = K =' ! ?; ?!' =C! @#?; 8; >' ! ## CK' 8!?' #B # #B 1 =A ?<' B =A' # K; ! =# =?' /?E ;' 8=' ?;' E?;"' !?;' < " =A' ?!' AC=' /?E ;' =?;' B =A' ;' B ' E?;"' !?;' < " =A' ?!' 8?<' D?#B' EB @B' < >' = ;#B 8 ! 'D ;>' =# A ?C 8! E 8' !?;' FK?;# !?;' = @ ! ;>' =E ; @?=L C<K# ?=' 5 (; 8' K ;!?=' B =A A =' ' ?9' K ;#= ;>!?;' ! ## =A' CK = @ ;;> =A' ?=P #B ' E?;" EB @B' < >' D !?' C! !C '' ! ' %B ; !?; B #>[E #B' @ = @?=! =# ?!' #B & # #

?!' / ;8 < =# (# #C# = + @8 ; =' !! ?C; ?!' (8 F = ;' ?K ?!' 1 ;! (?D ;# + @" ?=' (?;=D A4') ?;A 8 ;"' C= ?;' = J < 8!?C;' ;@B =# =' & =DC;AB' = #B ;' ?K ;#= ; #B ;' 8; >' ! C< ?;' #?' D ! C< = #B ;' C@@ ! ?; C= ;# " ; ?!' #B E?;"' #B #' #B ! #E?' E?;" !?;' < " =A' ?!' AC=' /?E ;' = !?;' < " =A' ?!' '?<' EB =' ##' CK' = &; @# 88 '' D =C! @#?; = #B # #B !?; / ;#= ; = (?@ #>' =A A !?; @ ;> =A' ?=' \#B ! E?;" 4' 88 88' D ; !; = 8 E!C88' *=@?;K?; # ?=' = 8B 88' B ; AB# #?4' Q' D;C " = = ?>' 88' #B K; 9' 8 A = < <C= # K;? =' ! ?; ?!' =CL ! @#?; D>' #B !?; A# ?!' / ;8 <7 4' = K ;# @C8 ;8>' = !?;' #B <?; K @ 8' <K8 ! @ # ?=' B ; ?!' #B B 88' K; 8 A 8 D ;# = < <C= L # A; =# #?' #B 8?a4#B' = 0 = =' =C! @#?; EB @B' ; B ; B?8 =' FK; ! 5' = ! ; ;' D L @ C! #B 8 ' ?<' E?;"' E =' ;' D !?; &; @#9' E #B =' #B 1 =A ?<' = #B # #B ' = ;# " ; <C88' = @ ! ;8>' #' ! ;!# D # A; # K = = FL K =! %B ; !?; B * #>' E #B' @ = @?=L ! =# !?; (# #C# Q' ; = #B # #B !?; ' = \# " ; #B ; ?!'88 88' B #B !? K?E ;' = \# K; ' A ?!' < " =A' ?!' #B ! < !?;' #B K @ ?!' =>=# =' > ; !;?<' = !# ;' #B ! ## =A' CK' ?!' #B ;' E?;" = #B # #' 88 '=?# D 8 !?< C; =A' #B # K @ !?;' =>' ?#B ;' K ; ?=' ?;' K ; ?= #?' < " P 88?<' E #B =' #B 1 =A ?B / ;? =A' 88E > #B # 0#B ! 0C= ;# " ; ?' (##' CK' #B ! ' ?<' E?;"' B #C F# = ;# < = 9' #B?C! = (F' BC= ; = >=#>' AB# > ; 8!?' #B\ # #B ! K; ! =# 8B '' D E #B?C#\ K; C @ #?' #B *<K?;# # ?=' ?!' '?<' = AC=' K?E ;' !;?<' !?;9' ; A=' K ;# D>' ;@B =# #B >' B D =' =' C! #?' ?' D !?; #B < " =A' B ; ?!

%' A = # *=#;C =A' =#?' BC;@B E B?C# 0 A 8' '' Q' < ! ?=' #B ; #?

' (& *) 0 +' ?= ; =A' %B # 85' 8> = # ; = / ; @B ; #B ;' *=#;C =A' #B < 8 =#?' @ =# BC;@B 4 /?! ! =A' ?!' J =! = = ! @ 4 = F ;@ =A' =>' K ;#' ?!' #B J = # ; 8' !!C=@# ?=' =' / ;? 4' E #B?C# 8 A 8 '' = L < ! ?=' #?' #B B\C;@B 4 =' B AB' @?=# <K# ?!'#B 0 E4 = ?!' =A ;?C @?= NC =@ # = =A' #?' K ;K #C # (@B <' 2 %B ; !?; #>' E #B' @ = @?= =# ?!' #B & # # ?!' / ;8 < =# (# #C# = + @8 ; #B # EB? ;' B ; !# ;' 8B 88' =#;C #B < 8 =#?' =>' BC;@B4 ?;' B 88' K?!' ! * * =! ?;' = ! @ 4 ?;\ B ' F ;@ ! =>' K ;# ?!' #B = # ; 8' !C=@# ?=' E #B =' =>' / ;?@B4 E #BL ?C# =' ?; ;8>' 88' !;?<' #B ; #?; = &8 ;L B K4 = 8 A 8 < ! ?=' !;?<' #B / ; D>#; @' E #B =' EB?! D?C= # 8> 4 ' 88' D =@ K D8 ?!' = ?> =A' =>' BC;@B4 ?;T(# K = ?;' = ! @ E #BL =' #8 1 =A ?<4 !?;' #B K @ ?!' =' > ; !# ;' #B ;' ; <? 8' !;?<' #B BC;@B4 = NC ## =A' K?!9

! ?=' ?!' #B ' (# K = ' = ' = ! @ ' =#?' EB @B' #B >' =#;C Ź 0 " ' B '* #>' E #B' @ ' = '@?=9' =#' !?; 4' ? 'B ; D>' < ##' #B '&F @C# ?=' ?!' #B ' K; =#' @#4' #?' (B ;; !! 4' (# E ;# 4' 88 '?!' 8 ; ' = ' A 8 # ' = '#B ;' + KC# 4' = '#?' A #; # ' ?!' C;;?E ' ?> 84' EB?' ; ' B ; D>' C#B?; W ' = ' ; NC ; '#?' <? ' = ' + @8 ; ' =@ K D8 ' C#' CK; ' 88' #B ! ' EB?' B 88' B ; !# ;' 9' #;C ' =#?' BC;@B ' E #B =' #B ;' ; K @# 'JC; L @# ?= 4' CK?=' @?<K8 =#' !;?<' #B ' /; D>#; 4' ?;' =>' K ;!?=' B =A' 2 ;; =#' !;?<' #B ' /; D>#; 4' E #B =' EB?! 'D?C= '#B ' ! ' =#;C! ?= '*B 8J B KL K =' #?' D ' < 'B ; !# ;4' = '#B #' CK?=' # # ?=' ?!' # =' > Ź ; = =A' B ; D>' 0 ## ; ' ?!' B?;=L =A' = ' K# ?=' #?' D ' ; @#' =' @?<<C=' !?;<' CK?=' + @; # ' #?' D ' A =' D>' #B ' ' =! ; ?C;' JC A 4' !?;' @?<K 88 =A' #B ' ' *=#;C ; ' #?' ; L <? ' !;?<' #B '! ' BC;@B ' = ' =! 4' = '#?' NC #' K?! ! ?=' ?!' #B ' ' (# K = ' = ' = ! @ 4' = ' #?' ! !#' = ' @ ! ' !;?<' F ;@ =A' =>' = !9' # ; 8' @# ' E #B =' #B ' ! ' / ;?@B 4' =#?' EB @B' #B >' !# 88' B ; !# ;' =#;C ' 0 " ' ' #>' + ?#B' B ; D>' @?<< = ' #?' #B ' 0?; ' ?!' B ' # ' / ; >' ?C=@ 8' #?' ; <? ' 88' #B ! ' EB?' B ' 8; >' ! =@ ' #B ' &!85 D8 !8 < =# ?!' #B ' K; 9' ! =#' BC;@B') ? ;=< =#4' =#;C ' =#?' @ =#' BC;@B ' E #B?C#' = ' ?; ;8>' 88' !;?<' #B ' 9' ; #?; ' = '&8 ; B K' ?!' #B ' / ;?@B4' = ' '8 A 8' 9 ' < ! ?=' !;?<' #B ' / ; D>#;>' E #B =' EB?! ' D?C= ' #B ' 5 ' BC;@B ' 8 Ź ' 8!?' #?' # " '!?< ' !L ! @#C 8' @?C;! ' !?;' #?KK =A' = ' B = ; =A #B ! ' = !# ; 4' 2B?' ; 4' ?;' *B '' D ' B ; !# ;4+ K?! ' D>' #B ' JC @ #?; ' ?!' #B ' K; ! =#' &!# D8 !B ' BC;@B4' !;?<' K; @B =A' ?;' F ;@ ! =A' =>' @#' ?!' #B ;' = # ; 8!' !C=@# ?=4' EB @B' #B >' @ =' =?# ?' !# ;' #B >' ; ' K?! 4' E #B?C#' ' B AB' @?=# <K#' ?!' #B ' C#B?; #>' ?!' #B ' BC;@B4' = '?!' #B ' 0 E ' ?!' #B ' 1 =A ?<' !# D8 B =A' #B ' ! <

%' = =#' 0 = '8> =A' C=9; A

. ' ' (& *) ' 0 +' = '#B ' & # # ' ?!' / ;8 < =#' % " =A' =#?' #B ;' ?= ; # ?=' #B ' A; #' + =# A ' ; ! =A' #?' #B ' EB?8 ' (CD @# ' !;?<' 0 = ' 8> =A' ;C=9; A4' = ' #B #' #B ' < ' ' B AB8>' K; C @ 8' #?' #B ' / ?8 @>' = '*<K;? < =#' ?!' #B ' # ?=4' D>' K8 =# =A' = ' =@8?! =A4' @?=!?;<' #?' #B ' ; 8' 0 E ' = ' @#' ?!' / ;8 < =#' ?!' D !?; ' < 'B ; = =#Ź $?;' ; < 'EB ;?!' ' #>' E #B9#B ' @ ' = ' ?= =#' ?!' #B ' ' & # # ' (# #C# ' = ' ; = '#B #' EB ; ;' 0 = '?!' !L ! ; =#' ; #?; ' 8>' ;C=9; A4' # B ' ' D ' 8 ! <' #?' #B ;' K ;#>' #?' KK8>' #?' #B ' (B ;; !! 4' (# E ;# 4' = ' 0?; ' ?!' A 8 #>' ?;' JC # @ '?!' / @ '?!' #B ' ; 8' (B ; ' EB ; 9#B ' 0 = '8>5' #?' #B ' !! @# #B #' #B ! '0 = '< >'B ' ' @@?; =A' #?' #B ;' ; K @# ' =# ; !# 4' EB?' ; 'B ; D>' KK?>=# ' = ' C#B?; W ' !?;' #B #' !! @#5 = ' #B #' !# ;' C ' = '8 E!C '' # # ?=' ?!' 88' K ;# '@?=@ ;= 4' #' =

@ ;# =' >' #?' D ' K; ! F ' D>' #B ' ' JC A ' ?;' JC A ' *#9' ' 8E > ' B ; D>' + @8 ; '%B #' #B ' 'JC A 4' =' < " =A' #B ' !?; ' + ! ?=4' !8 88' D 4' = ' ; ' B ; D>' ; !85; @# 4' ?' ' K @ 8' ; A ; ' < >' D ' B ' #?' #B ' * 8! ?=' B?C! '?!' #B ' ; K @L # ' ; #K; 4' = ' #B #' #B ; ' < >' D ' 88?E ' = ' C A '#?' #B <' #B ' ; K @# 'K ;# ' ?!' #B ' + 9' ! ?=4' 8B 88' D ' <?!#' @?<<? ?C ' #?' #B ;' ; K @L # ' =! ?=' B?C! ' = ' /?8 @>4' = ' EB @B' 8B '' =?#' D ' KK8 @ D8 ' #?' #B ' ?#B ;' @ =#' ; #?; 6' ' 8!?' !' ' B ; D>' /;? ' = ' + @8 ; '%B #' #B ;' K; =#' B 88' =?#' D ' F# = '#?' #B ' C;;?E' = ' *=@?;K?; #' @; ' D?#' #B #' [=?#E #B # = =AŹ B ; ?!4' #B ' < ' !B 88' ; < =' E #B' #B ' ; #?; ' #?' EB?<' #B >' ?' D 8?=A4' ' !' =?' C@B' @#' B ' D =' < '

% &' ?<< ## ' KK?>=# ' #?' < #' #?' <?;;?E#' #' = = ' '@8?@"

% &' 0?; ' /; =#' D>' ; ;' ?!' ' #' D<< ! ?= ;4' ?C;= '#B ' / ;8 < =#' # 88' ' ?= >' = F#' #' % =' ' 8?@"' =' #B ' !?; =??=

J ' O ' **%4' 4+ 4,

/ & (' ' ?88 '@ 88

% &' =C# ' ?!'#B '8 #' (;C=#' ; 4

*(' #' ?<< ! ?= ;' A= !> '#B #' =' ; K @#' #B #' #B ; ' E ' ?=8>' ?!! ; ' !?;' #B ' /?8 ' #' #B ' ;?CK' !!?C;' BC= ; ' = ' F#>'#E?'#B?C = 'K?C= ' (@?# ' <?= >' %B #' #B ; !?; ' #B ' ?<< ## 7' !?;' (@C; #>' ?!' #B ' 1 =A ?<' E '' ! 88' ?=' ?< '?#B ;' !?= '!?;' < " =A' CK' #B ' 3C?# '?!! ; '#?' #B ' 1 =A4

M ** ' 5 6 (0' <' & 'T + ' +,, * .' +' & 'C 00

0*& &%& & %' ?88?= 88' <!8#?=' D =A' # '#?' KK ;' #B ' >' = 'B 'D =A' @ 88 4' = ' =?#' ?<K ; =A4' ;# ! @ # ?=' E 'A; =# ' A = #' B <4' = 'B '?; ; '#?' D ' =?C=@ ' KK; B = ' = ' @C; ' =' #B '# ;< '?!' #B ' !?;< ;' ?; ;

M= : ')+E' E 6 + ' ' / ' * .8

% &' / ;8 < =#' B =A' ; !C< '#B ' =NC ;>' =#?' !' '#D' #B ' (8 CAB# ;' ?!' #B ')8 =@? < =' = ' EB?' E ; ' #B ' @#?; 4' = ' =' #B ' ! ; #' K8 @ ' = =#' 0 # =9' < =' = =#' ?88?= 88' < 8#?=' = ' #B #' K ;#' ?!' #B ' L K?;#' ?!' #B ' ? B< ! ?=' ; 8 # =A' #?' B <4' = ' #B ' ?; ; 'B 'A?#4' = '#B '?; ; 'B ' 'B 'A ' E #B' #B ' K?!8# ?= ' # " =' D !?; '#B ' ' ?<< !# ?=4' ; ' = ' !# ;' ?< ' D #'#B ; ?=' %B 'NC !8 ?=' E ' # # ' = ' ?# 4' !' !;?<' EB #' KK ; '#?' #B '' / ;8 < =#' 0 # = !##' ?88?= 88' < 8#?=' D ' @8 ;' ?!' #B ' <C; ;' ?!' #B ')8 =@? < =4' = 'EB L #B ;' #B ; ' D 'A;?C= '#?' K;?! @C# B <' !?;' #B ' < 4' ?;' =?#4' = '@ ;> 'B 'E '=?# @8 ;4' = '#B #' #B ; ' E 'A;?C= '#?' K;?! @C# B <

/ & (

?88 @ 88

* ' %(?!#B 8 # (;C=#; 4

8 F + & O %* F = ;@8 > g
; > = # ;# / # ;B (CD!@; D D> B <4 !#DE=g
=A = K ! =A !;?<#B / ;?# !# # K= A =!# #B
?<< ! ?= ?!#B) = ; 8 ! <D8>! =# #?#B
?;#B4 = #B K?;# ?!#B ?<< ## !?;(L
@C; #> ?!#B 1 =A ?< =B !! ?C; ; = B
D =A @ 88 4 = ?<K ; =A4 = B ; =A #?B
+ @8 ; # ?= ; ; #B # #B 8 F = ;
;@8 > D !< !

%!?!) = ; 8 ?88 @# ?= =! ?C; ?!
#B C;AB ?! C' =

3 / *' = # ; +, ' - 0

& / %' D;?CAB# =! ;?<#B ?<< ## ?;#B4 D K; ?!B D = ! @ = B 1 ;" L
(@C; #> ?!#B 1 =A ?<#B # F) 8D ;#
< > ?= ?!#B = # ; =#B (>=? ?!
D ; =EB?? E= #B / ;?# !# # ?= A =!# #B
?<< ! ?= ?!#B) = ; 8 ! <D8>! =# #?#B
@8 ; @ =#4 ; = B D =A @ 88 = <L
K ; =A4 K ! !;?<#B / ;?# !# # ?=5 = !?;
!C;#B ; =@ ?!B W 8 = !! @# ?= #?#B
) ? ;=< #4 B E =!# =#8>@?=# =# #?# # " #B
? #B ?!#B 88 A =@ = 8 C; =@ ; ; #B #
#B ! D< = ## 8 < ! B < B A =A + L
@8 ; # ?= =#B # ;< D? E; ## =C= ;B B = =
" =A#B ?# #B 0 88 A =@ 4 = (CD!@; D =A
#B ! < = #B ! C; =@ = B B =A (A=
=K; ! = ?!#B ! ?< < ## ! ?C= = ?!
#B / ;?# !# # K= # " = # D ; = A =!# #B 8 # =
?< < ## ?!#B) = ; 8 ! <D8>! = !E?; =
(A= #B ?# #B?!#B 88 A =@ #?#B 1 =A =
(A= #B ! C; =@ #?B <#B ?< < ## =
@?=!?;<#?#B ! ; ! ; =@ ?!/ ;8 < =# #?#B <
+ ! < ! #B !) 8D ;# < >!;?< =>
@ =!C; ?=#B ?<K8 =#; ! A =!# B <

%; <? =A ;= ; 1 =W L
= # ;?C# ?!#B / ; D>#; ?!
=A#?C=

.V %' & + * ') #B =>=# ?!' JC8>' G
= =# #B ?<K8 =# A =' =#?#B ?< < ## =
!?;' (@C; #> ?!#B P1 =A ?<' D>#B / ;?@B = ;
?!' %; = =# A[;= ; 1 =W = # ;
;; # =A' ! ; 8 < ! < == ; = A; =@
A =!# B <' = EB @B' < ! < == ; = A; L
=@ E #B' EB # E 8!?' 8 #?' B B ;A D> B
?@ # = B =!E ; =' E; # D?#B'
8> =A =' K;?@ D =A' CK?=' #B AB# >?!#B
! ?B #B' ?!' JC8>' ?= #B?C! = (F' BC= ; =
= =>=#>' ! > ; B ; = @?=! ; D>#B
! ?< < ## 8!?' B =A' @?=! ; #B # #B
! ;= ; =#; C =#?#B BC;@B' ?!
%; = =# = #B # B E @B ;A #?' K; @B' D>

J (>=? = =# ;K?! =' KK 8 = = ;' K;?9'
! @C# #B ! < = #B # B #B =' K; @B =' '
< # =A' B?C! =' #B 8 / ;?@B' ?!' %; = =# %B >'
A #B ;' ?K = ?=' #B # B *B?C8 D ; <? ?C#
?!#B / ; D>#; ?!' =A#?C=' = !@B ;A '
#?' K; @B' E #B =' #B ! < 2 B @B' K?;# ?!#B
! ?< < ## D =A' CK?=' #B 8 =>=#B' >4?!'
JC8>' ?= #B?C! = F' BC= ; = =>=# ! '
> ; #B >4 = # ?!' #B !' K; ! =# ; = '
#B ! 1 =W @ 88 = B ; ' =
/ ;8 < =# !# JB AB' ?< < ! ?= ;' = '
#B &!# # ?!' / ;8 < =# KK;? = B ; D>'
KK;? ?!#B ! K?;# = (=# =@ #B ; ='
@?=# = = = ; = = B ; D>' ; = #B 8 '
;= ; h1 =W #?'; <? ?C# ?!#B / ; D>L
#; ?!' =A#?C=' !# ;#B ! ;!# ?!' CAC #= F#

%' &+* ') #B =>=#B' >?!' JC8>' = . ('
#B?C! = (F' BC= ; = =>=#>' !! > ; = =#
#B / # # ?=' A =' =' = K; =# #?' B 4
0# B AB' ?< < ! ?= ;' = #B & # # 7?!' / ;8 L
< =# D>#B C;AB' ?!' C88 =' (B E =A' #B # EB ; '
=' #B # < ?!' #B #;?CD8 #B %?C=' ?!' C' B'
E DC;=# = K 88 A D>' #B ;NC ?!' ?=9'
#;?! B ; <>' F@ K# =A' ?=8>' #E?' B?C! = #B '
B? K # 8 %B =B D # =# E ; #B ; D>' ? <C@B'
;C = #B # #B >' E ; =?# =' =>' @?= # ?=' D8 #?'
< =# =' #B ;' B ;D?C;' ?' #B # #B < !?< > ; '
#B ; !# ;' E ? ;#B;?E=' = 8> =' ;CDD 8B'
EB ; D>' #B %; ?!' #B C;AB' NC # L
@ > 8D # #B ! < 8> =A' =' #B ?C#B' ?!' #B '
?;; >' $;#B' @?= = =#8>' ! #C # !?;' #; '
= # 8!?' <?!# = @ ! ;>' !?;' #B K; ! ; # ?='
?!' '' *B K #B # (8 #?' #B ?;#BE ; #B # '
!?; B ;D?C;' D ; K ; #B ; D =A' @8?!# L
@ =# #B ; #?' ?= ?!' #B ! !# D > = ;? ='
#B 1 =A ?<' = ' ?#E #B!# = =A' ?!' #B ;' L
@ > @?= # ?=' > # C@B' E #B ;' 0?> 8#>' #?' #B '
K; =#) ? ;=< =# #B # =' #B # < B ! '
;<>' E =# K >' #B >' !C;= B' #B <' E #B' 88
= @ ! ;>' K;? ! ?= = ' =' #B ;' #; =! =# NC ;# ; = '
= ;' # # ?= ! ;#B =A' ?=' #B #9 @@?<K# 8D #
#B >' E ; B ;; ! D>' #B ;' @?; !# =# < ;@B EB @B'
B ; = ; #B <' =' <C@B' E?;! ?= # ?=' #B ='
#B >' E ; =' !?; < ;8>' = #B >' @?C8 B =?'
K;? K @# ?!' D =A' !' =>' #?88 ; D8 @?= # ?=' C=8 ! †
#B >' E ; ! !# =' #B '; K ; # ?=' ?!' #B ;' B ;D?C;'
%B ; !?; BC<D8>' ; =A' B) ; @ ;# 0?; L
B K #?' # " #B K; < ! #?' #B ;' ?= ; # ?='
= #?') ; =# 8 ; =@ =#B ;' ! ?C; KK?>=#9'
=A = E ;; = =A) = ; 8 ?88 @# ?= ? ; 88'
#B 1 =A ?<!?; = D8 =A' #B <#?; K ;' #B '
B ;D?C;' #?' D < # #B ! ; 8 / ;?@B' BC;@B'
+??; D?#B' =' C;AB' = 0 = E ; CK?=' #B ! ;!#
0?; >' ?!' (K# <D ;' = F# = #?' ?; =' #B '
; K @# = # ; ?;' ; ;' #?' =# < # #B ! <

#B ‘ (DD #B‘ > << #8>‘K; @ =A‘ = ‘ 8!?‘ #B #‘#B ‘! ‘ = !# ; ‘!8 88‘; # =‘EB #‘!B 88‘D ‘!?‘ ?88 @# ‘C=# 88‘?= ‘ <K?E ; ‘D>‘#B ‘8 ‘ C;AB‘ @ 88‘!?;‘ = ‘; @ ‘#B ‘8 < ‘ = ‘ #‘#B ‘! < ‘# < ‘ #B ‘! ‘ = !# ; ‘!# 88‘ < ;"‘ =‘#B ‘D??" ‘#?‘D ‘ " K ‘D>‘#B ‘! ‘ ?88 @#?;‘?;‘ ?88 @#?; ‘#B ‘!?C< ‘ = ‘ &F# =#‘ ?!‘EB #‘E ‘ ?88 @# ‘E #B =‘#B ‘ / ;?@B‘ = ‘ 8!?‘#?‘ + @8 ; ‘#B #‘#B ‘ A !#; #‘?!‘ #B ‘ .‘ C;AB‘ ?!‘ C88 =‘!B 88‘D ‘8> 4D8‘#?‘B?8 ‘ ?<K#‘!?;‘#B ‘C ‘ KK8 @ #?=‘?!‘EB #‘!B 88‘D ‘ ?8L 8 @# ‘ =‘< == ;9!?; ‘#?‘#B ‘& ;8 ‘?!‘$ = 8 # ;‘ ?;‘ J < ‘ A 8 >‘?;‘ =>‘?= ‘?!‘#B <‘ = ‘ =‘ 9@ ! ‘#B >‘! = ‘ < ! < = A < =#‘#B #‘#B >‘B ‘ <L K?E ; ‘#?‘ KK?>=!‘?#B ;‘ < = A ; ‘!?;‘! =A‘#B ‘ ! < ‘ KK8> ‘!?;‘#B ‘C! ‘ !?; ‘ ‘#B ‘ ‘/ # 9‘0 08 ?=9D ; ‘ 2B @B‘/ # # ?=‘D =A‘CK?=‘#B ‘ >‘ = ‘ # ‘?!‘#B ;‘ K; ! =# ‘B ; ‘Q @?=! ; ‘D>‘B ‘ S F , -‘ ,/ ‘ ?<< ! ?= ;‘ = ‘#B ‘! ‘&!# # ‘ ?!‘/ ;8 < =#‘%B >‘) ; =# ‘ = ‘B ; D>‘) ; =# ‘ #B ‘ ; ‘#B ; ?!

% &‘ ?<< ## ‘ KK?>=# ‘#?‘ < #‘#B ‘= AB#‘ #‘(F‘ ‘@8?@"

% &‘ 0?; ‘/; =#‘D>‘?; ;‘ ?!‘B ‘ ?<< ! ?= ;‘ ?C;= ‘#B ‘/ ;8 = =#‘# ''‘#?‘ <?;;?E‘ #‘# =‘ ‘@8? @"‘ =‘#B ‘!?; =??=

‘ ‘ $ $

/ & (‘ ‘‘ ?88‘@ 88

* ' %(‘?!‘#B ‘8 #‘(;C=#‘;

. : * , ‘ ‘
& ‘ , * H
6 , ‘
& ‘C 0‘
+ -& 0‘ & ‘
*. * +,‘
& ‘3 -+ ‘
< #

2 &‘ >?C;‘ # ‘ <? #‘ 8?> 86‘ = ‘ C#>!C88‘ (CD @# ‘ %B ‘ ?D8 < =‘ ;; = ‘ = ‘ C;;?E ‘ ! <D8 ‘ =‘/ ;8 < =#‘ +?‘BC<D8>‘; K; ! =#‘#?7 >?C;‘ #>‘%B #‘ =‘#B ‘D A == =A‘?!‘#B ‘(! ?=‘ 2 ‘#B?CAB#‘ #‘?C;‘ C#>‘!?;‘#B ‘<?; ‘ ?8 <=‘ = ‘ KCB8 @"‘ = @ # ?=‘?!‘ #B ‘B?=?C;‘ = ‘ C!# @ ‘?!‘ 4#B ‘)? ;=< =#‘ #?‘ =NC ; ‘ =#?‘ #B ‘ D ;D ;?C ‘ 8 CAB# ;‘ @?<< ## ‘ =‘)8 =@? ‘ =‘ ! D;C ;>‘ = ‘ #B?C! = ‘ (F‘BC= ; ‘ = ‘=>=#>‘#E?‘EB @B‘B #B‘ < ‘ ?‘ <C@B‘=? ! ‘D?#B‘ =‘#B ‘ 1 =A ?<‘ = ‘ >?C;‘ # ‘?#B ;‘ +?< = ?= ‘ ?#‘E ‘D =A‘ =L !?;< ‘D>‘>?C;‘ # ‘ ?<;= ! ?= ;‘#B #‘E ‘ E ; ‘K; =# ‘ =‘#B ‘< ## ;‘D>‘ ‘ ?<< ! ?=‘ ‖C= ;‘#B ‘A; #‘(‘!?;‘#B ! ! KC;K?! ‘2 ‘ ‘ CK?=‘#B ‘; =A‘?!‘#B ‘ ‘ ?<< ! ?=‘C= = L <?C 8>‘ @NC !@ ‘#?‘ >?C;‘ # ‘K8 !C; 4‘ = ‘ ; #C;= ‘?C;‘BC<D8 ‘ @"=?E8 A < =# ‘!?;‘>?C;‘ ?> 8‘@ ; ‘ =‘A; =# =A‘#B ‘! < ‘ = ‘2 ‘?=8>‘ ! ; ‘#B #‘#B ‘ !@? ; ‘#?‘D ‘< ‘!B?C8 ‘D ‘ ?<<C= @ # ‘#?‘C ‘#?‘#B ‘ = ‘#B #‘E ‘< AB#‘ ‘?C;‘W 8#?‘>?C;‘ # ‘!?;‘K;?! @C# =A‘C@B‘ !@? ; ‘ = ‘#B #4‘ =‘!?‘ = # ?= 8‘ T ?=@ ;=‘#B ‘ = @ # ?=‘< AB#‘D ‘ 8! ‘KCD8 @"‘ ‘#B ‘; K;? @B‘ = ‘!@ = 8B ‘D =‘ = ‘K; =@ K 88>‘#B #‘E ‘!?;‖

EB?<‘ #‘E ‘<?!#K;?K ;4< AB#‘# !# !>‘#?‘#B ‘E?;8 ‘ B?E‘@8 ;‘>?C;‘ # ‘JC!# @ ‘ ‘ =‘ 88‘#B ‘< ## ;

+‘ =?E‘ >?C;‘ # ‘ ?<< ! ?= ;‘ B =A‘ CK?=‘?C;‘ ; K # ‘ =!# =@ ‘@?<<C= @ # ‘#?‘C ‘ ‘ ?K>‘?!‘#B ‘ K?;#‘#; = < ## ‘D>‘#B ‘ ?<L < ! ?=‘#?‘>?C;‘ #>‘E #B‘>?C;‘ # ‘*=9‘ !#;C@# ?= 4‘#B ‘ # ;‘?!‘(# ; ‘0 ## ; 4‘#B ‘?; ; ‘ A =‘D>‘#B ‘ !! @ ; ‘ = ‘#B ‘ K?! # ?= ‘?!‘#B ‘ E #= ! ‘ ; 8 # =A‘#?‘#B #‘ K?;#‘ = ‘#B ‘! < ‘ D =A‘; ‘ = ‘@?<K ; ‘2 ‘@?C8 ‘=?# D?#‘C= = L <?C 8>‘+ @8 ; ‘#B #‘>?C;‘ # ‘*=!#;C@# ?= ‘?!‘ #B ‘ 8 =#B‘ = ‘ (F# =#‘ > ‘?!‘J =C ;>‘ = ‘ #B?C! = ‘ (F‘BC= ; ‘ = ‘=>=#>‘#E?‘#?C@B =A‘#B ‘ B AB8 = ; ‘EB?‘B ‘=?#‘ @@ K# ‘ =‘ C ‘# < ‘?!‘ #B ‘D = ! #‘?!‘#B ‘9*= <= #>‘ ‘@?=# =‘ =‘2 ;9‘ ; = ‘!?;‘< ;@>‘#?‘ 88‘E #B?C#‘ F@ K# ?=4‘EB?‘* ?C8 ‘ ?!! ;‘#?‘# " ‘#B ‘‖? #B‘?!‘ ' A =@ 4‘ = ‘@?< ‘ =‘ CK?=‘< ;@>‘#B?‘#B ‘! ; #‘?!‘J =C ;>‘ = ‘#B?C! = ‘ (F‘BC= ; ‘ = ‘=>=# ‘#E?‘K; ! F ‘D>‘#B ‘/;?L @8 < # ?=‘?!‘*= < #>‘E ‘K !#‘ = ‘#B #‘#B ! ‘ =!#;C@# ?= ‘@?=# =‘=?‘2 ;; = ‘!?;‘#B ‘&F @C# ?=9‘ ?!‘#B ‘)8 =@? ‘< =‘< ‘ =‘$ D;C ;>‘#B ; !# ;‘ = ‘B ; ‘E ‘= =‘=?#‘D?#‘ @"=?E8 A ‘>?C;‘ L # ‘ 8 < =@>‘CK?=‘#B ‘]?@@ ! ?=‘ 8! ‘E 8‘ ‘ =‘ #B ‘EB?8 ‘#; @#‘?!‘>?C;‘)? ;=< =#‘? ;‘C ‘$?;‘ B ‘>?C;‘ #>‘E #B?C#‘ = E‘?!! ; ‘?!‘< ;@>‘ A =‘KK! # ‘?; ; ‘!?;‘#B ‘&F @C# =A‘#B ‘0 E‘ CK?= #B ‘ AB8 = ; ‘#B #‘B ‘ 8; >‘ K ! ‘ >?C;‘ ; K # ‘*= <= # ‘#B >‘B ‘DC#‘< #‘E #B‘ EB #‘#B >‘C #8>‘ ! ;

%‘ #‘D =A‘>?C;‘ (‘< = ‘ @@?; =A‘#?‘ >?C;‘C!C 8‘ 8 < =@>9‘!# ''‘#?‘?!! ;‘#B <‘< ;@>‘ = ‘ #B ‘" 88 =A‘?!‘#B ‘)8 =@? ‘< =‘D =A‘CK?=‘#B #‘ @ ‘ @?C=#‘C=E ;; =# D8‘ 8! ‘E ''‘ ‘#B ‘< == ;‘?!‘ ?L =A‘#‘D =A‘D ;D ;?C ‘ = ‘ =BC< = ‘E ‘K;?@ ‘ #?‘ ?# ‘#B ‘" 88 =A‘?!‘#B <‘ ‘<C; ;‘ = ‘#?‘ =NC ; ‘ EB?‘B ‘A =‘?@@ ! ?B‘#?‘ #4‘?;‘E ; ‘#B 8@#?; ‘ =‘ #

2 &‘ !?C= ‘ =‘ #B ‘ ! ; #‘K8 @ ‘#B #‘#B ‘ # ;‘?!‘ (# ; ‘0 ## ; ‘B ‘ F@ ‘>?C;‘ # ‘*=!#;C@L # ?= ‘#?E ; ‘#B ‘" 88 =A‘ = ‘ !#;C@# ?=‘?!‘#B ‘)8 =@? ‘< =‘%B ‘ KK ; ‘T D>‘#B ‘@?<K ; =A‘?!‘ #B ‘*=!#;C@# ?= ‘ = ‘0 ## ; ‘EB ;?!‘#B ‘C!#‘ ## !#9‘ ‘ +CK8 @ # ‘ ; ‘B ; E #B‘#; = < ## ‘ *=‘EB @B‘ 0 ## ; ‘#B ‘)8 =@? ‘< =‘ ; ‘? ;‘ = ‘? ;‘ A =‘ # =AC B ‘!;?<‘#B ‘; !#?!‘#B ‘ AB8 = ; ‘=?#‘ ‘#B ‘! ## !# (CD @#?!‘(; #>‘ =‘@ ! ‘#B >‘@?=# L =C ‘?D!# = #‘ = ‘< ‘ ; #>‘= @ ! ;>‘ @@?; =A‘ #?‘#B ‘< = =A‘?!‘#B ‘*=!#;C@# ?= ‘D?#‘ ‘< =‘D!?9‘ 8C# 8>‘ = ‘K?! # 8>‘?; ; ‘#?‘D ‘ !#;?> ‘E #BL ?C#‘ =>‘!C;#B ;‘ ?=! ; # ?=‘#B =‘#B #‘?!‘#B ;‘=?# B =A‘# " =‘#B ‘*= <= #>‘ =‘ C ‘# < ‘ = ‘#B ;‘ =?#‘ B =A‘# " =‘ #4‘ ‘ 8C ‘ ‘ ‘B KK>‘ =@ =#‘ =@ ‘ #‘ !!?; ‘ =‘?KK?;#C= #>‘#?‘ 8DT?>‘#B <‘ = ‘#B ‘ !#;?> =A‘?!‘#B <‘ ‘C;A 4‘E #B‘ ‘A; #‘ 8‘?!‘W 8‘ ‘ ‘#B =A‘ @@ K# D8 ‘ = ‘?!‘KCD8 @"‘C! ‘ = ‘#B ‘W 8‘ ‘ F# = ‘ =‘#?‘#B ‘A =A‘?!‘ L ; @# ?= ‘ D?C#‘#B ‘< == ;‘?!‘@C## =A‘#B <‘?!!4!;?<‘ 88‘EB @B‘ #‘ ‘K8 =‘#B #‘#B?‘#B ‘*=!#;C@# ?= ‘D ‘!?;

' '*=;' Å ' ?>;

' < ;@>' #?' 8' #B #' E 8' (CD< ##' #B?' #B ' >'P?!' *=L
<= #>' E ' 8 K! ' > ' #B ' 0 ## ; ' ?' F@8C '
#B ')8 =@? ' < =' !;?<' #B ' < ;@>

* ' #B ' = F#' K8 @ ' 2 ' F < = ' #B ' ?; ; ' A ='
D>' (Ⅱ[%B?< ' 0 =A #?C=' ='#B ' < ## ;9 = ' E ; '
C= = <?C 8>' ?!' ?K = ?=' #B #' B ' B ' ; !?=' #?' A '
C@B' ?; ; ' !?;' #B ' @C## =A' ?!!' ?!' #B ')8 =@? ' < ='
CK?=' #B ' CKK?! # ?=' #B #' #B >' B ' ; @# ' #B ' *=L
<= #>' = ' E #B?C#' < " =A' #B <' = E' ?!! ; ' ?!'
< ;@>9D =A' ' #B =A' =' # 8! ' 8 E!C8' = ' EB @B'
>?C;'P #>' < AB#' B ' ?; ; ' = ' #' KK ; =A'
#B # (Ⅱ%B?< ' E ' #B =' A=?; =#' ?!'#B 'K @C8 ;'@ ;g'
@C<!# =@ ' ?!'#B ')8 =@? ' < =' B ' < AB#' ;>' '
0 8= ;!# = ' >?C;' # ' *=!#;C@# ?= ' =' #B ' ; g'
!#; @# ' ! =! ' EB @B' #B ' # ;' ?!' (# ; ' 0 ## ; '
B 'A =' #B <' ?;'C= ;!# = ' #B ' ## ;' ?!' (# ; '
0 ## ; Ⅱ#?' B ' >?C;' # ' # ?= 8' K8 !C; '
= ' #' ' =#' B ' 'D>' #B ' ?; ; 'ⅡEB @B' B '
A ' EB ; ' =>' # ?=' #B #' ' #?' D ''!?C= ' ='
#B <' #?' >?C;' # ' *=##;C@# ?= ' ' A =' =?#'
?=8>' =' #B ' # ;' ?!' (# ; ' ! =! ' B?#' =' B ' E?;

2 &' K;?@ '#?' F < = ' ?88?= '' ' 'K ;#' ?!'
#B 'DK! = ! ' = ' E ; 'C= = <?C '#B #' B 'E '@8 ;'
= '!; '?!'#B Ⅱ!8 CAB# ;Ⅱ?!'#B ')8 =@? ' < ='!?;'#B?'
>?C;' !# J&=##;C@# ?= ' = '#B ' # ;'?!' (# ; '
00 ## ; ' 2 ; ' 8 =#' ##; AB#' !;?<' 0?= ?=' #?' B <'
8! ' 2 8' '#?' (Ⅱ%B?< 90 =A##?C=' > #' B '"=?EL
=A' #B 'K @C8 ;'@ ;@C<## =@ ' ?!' #B ')8 =@? ' < ='
*BC== '#?' F C#' #B 3' = 'A '=?' ?; ; ' ='#B '
< ## ;' # 8' !C@"' # < ' ' "=?E =A' #B #' B ' 0 g'
== =#' ?88?= ''B '; @ ' ?; ; '#?'# " 'E #B'
8 <' !?C;' BC= ; ' < =' ?!' B ') ; !?=' = ' A L
< =#' !?;' #B ' &FK # ?=' A = #')8 =@K ' '#?'
'B ' ?E=' B?=?C;' = ' C#B?; #>' A ' 'A = ; 8'
?; ;' #?Ⅱ < 8#?=' B g 0 # == =#' ?88?= 8' #?'
" 'B '!?C;' BC= ; ' < =' = '#?' KC#' #?' C] F g'
@C# ?=' #B Ⅱ?; ; 'EB @B' ?#B ; 'B 'A =' B B!

$ $ 4 $
0*&' &%& & %' ?88?= 8' < 8#?= 'K ;#'@ <
= F#' #?' B '@?= ; ' = 'B 'D =A' ; NC ; '#?' D '
K; ! =#' = '@ 88 ' < '=?# KK ; =A' 2 '?; ; '
B <' #?' D ' =?C=@ ' = '#?' D '! #! '?=' EB ; ;'
B '@?C8 ' D ' !?C= ' = ' B =A' ?=! ; ' #B '
?; ; '#B #' B '; @ 4 Q?; ; 9B ' 'D !?; '#B '
?<< ! ?=7'B 'A 4 = 'B ' 8B ; ' =' #B '&F @CL
?=' 2 ' A; '#B #' !;?<' EB #' KK ; 4'B 'E '
=?#' @8 ;' ?!' #B ' <C; ;' ?!' #B ')8 =@? ' < ' = '
#B #' #B ; 'E 'A FCC= '#?' K;?! @C#' B <' !?;' #

J '+C=@ = ?=' EB?; @ '?; ; '!;?<' L
< 8#?=' D =A' =' $8 = ; ' 8! ' E '' '#B?! '#?' EB?<'
B 'A '?; ; ' 2 '@?C8 '=?#' ! '#B ! '?; ; ' = '
#B ; !?; ' 2 '?=8>' ; !?8 ' D?C#' B <' #B #' 2 '
*B?C8 ' ; ! '#?' >?C;' #>' #B ;'#?' @ C! 'B ='
D ' F < = '#B ; ' ='$8 = ; ' D?C# #B '?; ; 'B '
; @ ' = ' B ' "; ?E8 A ' ?!' #B #' !! ;' ?;'#?'
?; ;' B <' B?< '#?' D 'K;?! @C# '#B ; !?; 4 '>?C;'
#>' 8B 8' #B ="' ! ##' 0 4 ' Ⅱ

* '#B 78 ##' K8 @ ' #B ' + K?8" ?=(Ⅱ ?!' #B ' E #= ! '
D =A @8 ;' '#?' #B '!8 ; 'EB @B' K# =' <KD 8'
?!')8 =8>?=4' K# =' +;C< <?= ' 0 # == =#'
0 = ! >' &= A=' 0C= >' = 9' (; =#' ;D ;'B ' ='
#B ' &F @C# ?=' ?!' #B)8 =@? ' < =' CK?=' EB?<'
#B >' E ; 'NC ;# ; ' 2 ' A; '#B #' #' KK ; '
#B #' #B ' ! A' K ; ?= ' E ; ' #B ' (#?; ' =' #B '
(8 CAB# ;'?!' #B ')8 =@? ' < =' C= ;'#;C!#' = '#B #'
E '!8 ?C8 ' ; ! '>?C;' #>'#?' = '#B <'B?< '
#?' D 'K;?! @C# '!?;'#B 'P < ' @@?; =A' #?' 0 E

% *(' D =A' #B ' A# # ' ?!' #B #' EB?8 7' < ## ;' i' #
8>]D !?; ' ' ' = 'EB @B'#?A #B ;'E #B4#B ' K?;#'
#; = < ## ' #?' >?C;' #>' D>' #B ' ?<;= ! ?='
X = 'EB @B' E ' 8 E' ; !> ' A ' !C88' 8 AB!' #?' #'
2 'BC<D8>' D A' #B #'@?= ; =A' #B #'#B ' #;'
?!' (# ; ' F@ !' =' B ' 0 ## ; ' A = #' #B ')8 =@? '
< =' B 'D =' #B ' ; A = 8' @ C! ' ?!' #B ' C=B KK>'
DC! = ! ' = 'B #B' A =' ?@@ ! ?=' =' 'A; #' < !C; '
#?' !?' F#; ?; = ;>' =' &F @C# ?=' D>' #B ' E ;<'
; @# ?= 'B 'A ' D?C#' ? =A' #' D>' E > ?!' (C;L
K; W ' = '@?= ; =A' #B ' B AB' (# # ?=' = '%;C #'
B ' ' =' = '#B #' B ' ' D! =#' 2 ' ?' #B ; !?; '
D A' #B #'>?C;9 #>' E 8' A ' C@B' ?; ; ' D?C#'
B <' !?;' = @ # ?=' ?!'>?C;') ? ;=< =#' ,'>?E' <'
>?C;' ?> 8' E ?<'8B 8' #B ="' ! ##' #

+' 8 " E > ' @?=! ; =A' #B #' #B ' @#?; 'B 7'
D #D ;?C 8>' " 88 ' < =' C= ;' #;C!#' 2 'BC<D8>'
! ; ' >?C;' #>' E?8 ' D ' K8 ! ' #?' ! = '#B '
@#?; ' B?< ' = '#?' A '?; ; '#?' >?C;' ?@ #'
#?' K;?! @C#' #B <' @@?; =A' #?' 0 E' #B ; ' ; < <9'
=A' =?#B =A' 8! '#?' D ' ?= '!?;'#B '!C88' = @ # ?='
?!'>?C;[) ? ;=< =#' ?!' !?' !DC88' = '! = 8?C ' ='
!K ;! ?=' ' #' B '8> =' C= ;' CK?=' #B ' ?@@ ! ?=

' 2 &' 8B 88' ?=8>' '#B #' #B '; < = ' '#B 'M' $ '
< =' EB?' ! Ⅱ K ' #B ' (8 CAB# ;' D =A' ; C@ ' '
A; #' K? ;#>' D>'#B ' K; # ?=' = ' !# # ?='#B #''
E '#B =' @?<< ## 'CK?=' #B <' = 'B =A' ;'
! =@ '8 'K @ D8>' C= ;' >?C;' # 'K;?# @L
?=' ' =?E' KK8> '#?' C '#B #' E ' < AB#' =# ;g'
@ 'E #B' >?C;' #>' #B #'P ?< ' ; K ; # ?=' < >'
D ' < '#B <' !?;'#B ;' 0?! ' 2 ' ?' BC<D8>'8 >'
#B ;' @ ! ' D !?; ' >?C;' #>' 'E?;#B>' ?!' >?C;'
?> 8' B ; #>' = Ⅱ ?<K ! ?=' #B #' C@B' ?; ; '
< >' D 'A ='!?;' (CKK8> =A' #B <' =' #B ;'= @ ! B'
' Ⅱ>?C;' #>' !# 8' #B ="' ! #!

+' #B 9#B ' <?!# BC<D8 ' ; ! ' ?!'#B &## # 5'
?!' / ;8 < =#' ' D>' ?; ;' = '#B ;' 2 ;; = ' = ' '
=' #B ;'= < ' (CD8@; D 'D>'
' #' K8 ! '>?C;' #>
?C;' # ' <?!# BC<D8 ' <?!# ?D =#
' = ' <?!# !! #B!C88' (CD @#' = '! ; =#'
! @ !CD!@; D #C;' ' +' 0&' /
*' $ ' + ' / ; Z

2 * ' ; ! ' 7 ' CK?=' #B '# =#B' >' ?!' #B '
?= #B' ?!' JC8>' = ' #B?C! = ' (F' BC= ; ' = '
=>=#>' ! ' ?# ' = ' KK;? =' =' / ;8 < =# ' 0
' /'

?> ;

, .-* , '#?' && & +&+7' #?' ' # ' ?<< !9'
, A ' ?= ;'9#?' #; =!< ## #?' #B ' 1 =A' #B ' ' ; ! 4
8 #B' CK8 @ # ' ?!' #B ' 1 =A ' *=!#;C@# ?= ' = ' ?!'
#B ' # ;' ?!' (# ; ' 0 ## ;

&+' %B # B ' # ' ?= < ! K; ;' B '
'#B '#B =" ' ?!' #B 9 / ;8 < =# !?;' 8 > =A' #B ' + L
@? ;>' < ' ?!' #B ' < ## ;' ?!') 8 =@? 'D !?; '#B <5'
'8 " E ! 4 #B ' ?<< ! ?=' !?;' #B ;' @ ; !C88 K;?L
@ C; 9 #B ; =' 2 B @B' D =A' KC# #?' #B ' ?# 4 KL
K;? ' ?;' =?#4 @ ;; ' =' #B ' !! ;< # ' = < = '
?=#; @ =# 9 2 B @B' B ' # ' ?<< ! ?= ;'
@@ K# ' ?!6 4

5 -+6 6 ' %' &+* ') ' #B ' # =#B' >' ?!' JC8>' = '
1 AI =1' #B?C8 = ' (F' BC= ; ' = ' =>=#>' ! 9> ; ' = =#'
, 7+ * ' +,' #B ' / # # ?=' K; ! =# ' #?' B ' # ' B AB' ?<9
;!); =#7 = B ?= ;' = ' \5B ' &!# # ' ?!' / ;8 < =# D>' 0C ?9'
@"'); =#74 ?!' #B' # 8"' (B E =A' #B # EB ; ' !;?<'
#B ' D A == =A' ?!' #B ' ?8C# ?=' B =A' # 88'
?@@ ! ?=' ; ' B ' #>' ' D @ < ' =' 8?> 8'
(CD @# = ' B =A' !; NC =#8>' ?>= ' E #B' = '
A =' ! !# =@ ' #?' B ' # '!?;@ ' A =!# #B 9'
D ' ' =' #B ' B AB8 = ' #B ' ' D 88 ' '
#B ; CK?=' @?=@ ' A; # K; C @ ' = ' < 8 @ '
A = # B <' = ' ' !; NC =#8>' =@ <K' CK?=' B '
0 = 9 = ' ' K8C= ;' = ' K 88 A ' B EB?8 '
& # # ' EB ; D>' B ' # == =# ' E ; '!?' = K? ; B '
#B # B ' A?# 8 #8 ' ?;' =?' ; =# !?;' ; 8' > ; ' ?C# ?!'
B ' 0 = ' =' (#; #B K >' = ' B ' E ' = @ ! # # #?'
@B ;A ' B ' # == =# ' =' ' ;NCB ;# #B ' =# ; ' ; =#
?!' #B # ;?=>' EB @B' ' (F' #B?C! = ' K?C= '
!@?# ' = ' \#B # !?;' #B ' > ; ' = ' #B?C! = ' (F' [
BC= ; ' = ' AB#>' =>= ' = ' #B?C! = ' (F'
BC= ; ' = ' =>=#> ' = ' #B?C! = ' (F' BC= ; '
N ' =>=#>]' ?= ' = ' #B?C! = ' (F' BC= ; ' = '
' =>=#>' #E? = ' = ' #B?C! = ' (F' BC= ; ' = '
=>=#>' #B; 4 #B ;' (#?@" ' D =A' !?' =# ; 8>' @ ;;> '
E >' #B # #B >' @?C8 ' =?# @?=8 =?E' #?' 8 D?C;' E #BL
?C# #B # D # < =# = ' B ' B =A' !?; < ;8>' A ='
=' ' / # # ?=' #?' #B ' / ;8 < =# ; =A' #B # ?<L
< ! ?=' < AB# D ' A; =# ' #?' #B ' (B ;; !! ' = '
?<< ! ?= ; ' ?!' (CKK8>' ?!' #B ' (B ; ' ?!' *= ;9'
= ! ' C;; >' = ' <! ' #?' # " ' @?A= W =@ ' ?!' B '
<= A ' E #B =' #B ;' ; K @# ' (B ; ' = 9 @L
@?; =A8>' #?' ; K?;# #B ' ! < =' ' K;?D # ?='0!! ?C8 '
D ' 8 ' D !?; ' #B <' #B ; = =#' = ' ' ?<< ! ?='
B =A' D =' A; =# ' @?=!?;<' #?' #B ' ! ; ' ?!' #B '
7 !?; ' / # # ?=%B >' ' @@?; =A8>' # " ' #B '
? #B ' ?!' B ' # == =# ' = ' ?#B ; ' = ' #B ;CK?='
B ' < ' ' K?;#4 = ' #B ' @@?<K7# ?!' B '
0?! ' E #B =' (#; #B K >' ' K;? =' D !?; ' #B
' (B ;; 8! ' = ' ?<< ! ?= ; ' 7 ? 7' <?C=# #?
(=#>' F' #B?C! = ' = ' BC= ; ' = ' ! !#>' #E?'
K?C= ' = ' B ' 8?! ' =' ' ;NCB ;# @?=!?;<' #?' #B '
K ;# @C8 ;' @@?<K# #B ; K!' +? ' F# = ' #?' !?C;#>'
0!?C;' #B?C! = ' #B; ' BC= ; ' 0 = ' #B; ##>' #B; '
K?C= ' = ' ? ;' = ' D? ' #B ' B ' C!# = ' #B '
8?! ' ?!' #B ' ; =# ?!' #B ' !?; ' ;;?=>' !?;' !

> ; ' D =A' (F' 0#B?C! = ' K?C= ' > ;8>' &F# = '
' #?' #B; ##>' #B?C! = ' K? C=^8 ' = ' #B ' !?; ' ;# L
@8 ' D =A' 88 @?= ?>= ' +? ' <?C=# #?' = ' BC=L
; ' = ' ! !#>' #B?C! = ' !?C;' BC= ; ' = ' AB#>'
F' K?C= '9#B; ' *B 88 =A' # =' K == ' = ' ! =A' '
88 #B ' <= A ' #B ' / # # ?= ;' C!# = ' E ' ?@9'
@ ! ?= ' D>' B ' W 8 = ' !?;E ; = ! ' =' B ' L
# ' (; @ 4 = ' CK?=' #B ' KCD8 @"' @@?C=# ?!' #B '
# ?=4 #B ; ' D =A' 8!?' @?=! ; D8 ' =# A '
#?' (@?# ' = ' &=A8 B' !?;@ ' EB @B' @ =' =?# D ' ; L
@? ; ' ?C# ?!' #B ' / ?8 ' <?= >' =' ; K @#9#B # #
E ' B?# K?! D8 ' #?' ?= !@ = ' ?=' K ;# @C8 ;' K ;9'
!?= ' EB?' A?# #B ' ! < ' EB =' #B ' ;<>' 8 >' !9'
K ;! ' !?' 8?=A' = ' ?!# =' =' #B ' / # # ?= ; ' ?C=L
#; >' = ' #B ' =@ ' #?' #B ' &=A8 !8 ' !?;@ ' ; ' '
=?# K > D8 ' ?C# ?!'#B # !?= ' %B ; !? 9 ' BC< D8>'
; =A' #B # B ') ; @ ' = ' 0?; B K ' E?8 ' # " '
#B ' K; < ! ' #?' #B ;' ?= ; # ?=' = ' ; E'
= ' ?=! ; #B ' ! ' K?;# E #B' #B ' *=88;C@# ?B '
#B ;?!' = ' @@?; =A' #B ; #?' #?' <? !>' = ' @8 ; '
#B ' / # # ?= ; ' 0?! ' = ' <= A ' = ' #B ;'
#?' KK?>=# B <' '!?= '!?;' B 'K >< =# ?;' # 8 !#
#?' A; =# B <' ' @?<< = # ?=' #?' B ' * #>'
!?;' #B ' ! < 4 #B ' ! ' / # # ?=' D ; ' 2 B @B'
/ # # ?=' D =A' CK?=' #B ' ! !#B' >' ?!' #B ' ! '
?= #B' ?!' JC8>' = ' #B?C! = ' (F' BC= ; ' = '
=>=# '! ' ?=! ; 'D>' B ' 8 5 'B AB' ?<9'
< ! ?= ;' = '#B ' ! '&!# # ' ?!' / ;8 < =# %8 >'
< ## ' #?' #B ' ?<< ## ' !?;' K; # !! ; ' #?'

?=! ;' #B ' K?;# ?!' #B ' (B ;; !! ' = ' ?<< !#9'
?= ; ' ?!' (CKK8>' ?!' #B ' / # # ?7= ; ' 8?! ' = '
<= A ' E #B' #B ' *=!#;C@# ?= ' #B ; ?!' = ' #?'
; K?;# #?'5#B '9/ ;8 < =#9 = '#B >' + @8 ; '#B #'
#B; ' ?!' #B ' ! ' ?= < ## ' *B 88 D ' ' NC?;C<4 0
#B ; ' D =A' ?= ' ?!' ;>' &!# # ' < " =A' CK' #B '
8 '#B; ' = ' EB @B' ; < ## D? E; ## =' D =A'
CK?=' #B ' AB# >' ?!' #B ' ! =!# =# * ?= #B' ?!'
JC8>' ?=! ; ' D>' #B ' ! ' ?<< ## ' %B >' 9'
@?< B = ' #?' #B ' 0?; ' D ;C@B 8' ?= ' ?!' #B ;'
?E=' =C<D ;' #?' ; ! ' #B ' K?;# ' ?!' #B ' ?<< #9'
?= ; ' ?!' (CKK8>' = =# #B ' K # # ?= ;' = ' B ' # =L
= =# ' <= A ' = ' #?' ; K?;# #?' #B ' ?<< ##
A =!# #B ' <?;;?E' # =>= ' '@8?@"' 2 B @B' ; K?;# '
?!' #B ' ?<< 8(?= ; ' ?!' (CKK8>9D =A' CK?=' #D '
>' = ' # ' ?!' #B ;' K; ! =# ' ! ' = ' ?=! L
; 'D>' #B ' ! ' 0?; ' D ;C@B 8' B ' @@?; =A' #?'
#B ' !?;! ' @?<< = # ?=' ; K?;# ' B ' ?K = ?='
#B ; = =# #?' #B ' !?;! ' ?<< ## ' = ' EB @B'
K?;# < ' D>' #B ' ! ' 0?; ' D ;C@B 8' D =A'
CK?=' #B ' >' = ' # ' B ; ?!' ?=! ; ' D>' #B '
! ' ?<< ## ' %B >' ; = ' #B ' !?88?E =A' ; L
K?;# #?' D ' #; = < ## ' #?' #B ' / ;8 < =# =' < =L
= ;' !# ;< =# ?= '%B # #B ' ?<< ## ' !?;' K; #
!! ; ' @?=!?;<' #?' #B ' !?;! ' ; < ## ?!' / ;8 < =#
B =A' ; ! ' = ?=! ; ' ' ; K?;# ?!' #B
0 ; ' ?!') ; =# B ' ! ,8 ' 7= ' # == =# ' #B ;'
<= A ' C= ;' #B ' B = 4 ?!' 8 F = ;' + C!!' ?!'
; @?' = ' 2 8# ;') ; =# ?!' ; =# 88 ' ?<< !L
?= ; ' ?!' B ' * !# ' (CKK8>' ; =A' #B # #B >'
B ' # " =' #B ' ? #B ' = ' K?! # ?= ' ?!' #B ' 8

?><

?>(

D=A] 9 ')]) R

/ & (? 88 @ 88

* ' % (?! # ; 8 !# (;C=# ;

0) *(Q)+ - +* +, & << 0

+ & & + #B # #B , 8 ;" $ = ? 88 $ @#?; !?; #B 8 !# (CK > B @?=# =?E !?; #B # ;< ?! 0 <D ?! #B (CKK8> &F@ K# =A #B (B ; ?! 9O?#B =4 =A#?C= ;A 8 = ?! EB? ; 88?E #?@B??# = ?E

* K?;# = =# #B # @"?!#B /?8 348

& / %D;?CAB# =!;?< #B ?< < ## !?; , % ?! #B 1 =A ?< %B # #B # @" ?! #B /?8 <K?! = #B > ; = #B?C! = (F BC=L ; = =>=#> #B; 4 D #C;= #? ?88 @# ?= ; 4 = !# ;? ?< D # = < = < =# #B ; ?=4 ?# KK;? ?;? 8 >4 = @ ;; KL K;? 4 = ; @?< < = #? #B ! ?< < ## #? D; =A = = @# Q ?< < ! ?= #B ; = =#

%' @B ;A =A / ?K B / ; ?= #? K; L C A #B ;J/ ;?# !# =# ; = (C@@ ! ?=

' (& *) 1 0 + C= ; # = =A #B # / ; =# = = ?#B ; ?! #B /?K B 8 A ?=4 = #B # ; ? !! @# + ?; !#; = = ? ; E #B ; B 8 ; = = KK ; = B ; 4 ? #B >@ ==?#4 #B?CAB @?= =@ = #B ;? ?=!@ =@ 4 D> #B 0 AB# ?! #B #;C#B D = ?= #B /?K B &;;?; 4 = (CK ;!# # ?= ?! #B ; / ; =# 4 !?;! ; #B # #B > < > D #B <! =B ; # 4 Q K; ?! =>D = ! # ?! (C@@ ! ?=4 #B # #B > < > B D> #B ;! / ; =# 4 = ?#B ; !?; + ?#B ; L !?; = !?;; < #B ;?! (# #C# = ; = E #B @ = @?=! =# ?! #B &!# # ?! / ;8 < =#4 %B # # !B 88 =?# D 8 !?<4 =?; = #B K?E ;?! =>K;?! !# ?; "=?E= / K !#4 #? < " =>A; #C L #?C + ?;? + K?! # ?= = K; C @ ?! #B ;? KL K ; = B ; 4 = #B D = ! # #B > < > B D> #B ;? (C@@ ! ?= #? = = ! ?; ?! =>?#B ;K ;9 !?= ?;K ;!?= EB #!?< ;5 + @8 ; =A4 8 " # B ; D> + @8 ; #B # =?C?8 + K?! # ?= ?;? + !8 88 D ?! =>!!?;@@ B?# !8 88 D JC A #?D) ; #C #?C 4 C=8 ! #B # D?#B #B K ;!?= A; =# ;? = #B E; # ;? = E #= ! = #B + !8 88 @8 ; CK?= ? #B4 = 8!? NC 8 !> # !> =A8> D !?; #B JC A ; = ;> ?! #B D?C= 4 #B # #B !?; ! K?! # ?= = E < = A; =# 4 !?;? #;C ?= ;?C = NC # @ C! i ?;? ?#B ;E > #B # #B ! < !8 ' D =C ' = ? 4 = < == ;? D? (# #C#

%' = ! ?C; ?! #B 0 = = =C! @#?;>

' (& *) 1 0 + = & # # ?! / ;L U(8 < =# @?= ; =A #B A; # =# A #B # < > ; ! #? #B 1 =A ?< D> #B 0 = = =C! @#?;> ; @# = ! # D8 B D> = @# K !# = #B 8 !# (! N= ?! #B @C;; =# / ;8 < =# = #B # #B < K; ! =# < = A D> #B ' = ;# " ; #B ;?! E #B A; # @B ;A = FK =! 4 = K;?L D D8> < > =?#4# " 7 # E !8 # !?; !! @# C=8 ! #B > < #E #B C @?C; A < =# %B ; !?; B L #> E #B @ = @?=! =#7 ?! #B &!# # ?! / ;8 < =# =?# ?=8> # !> = KK;? #B !?; < ; / ; 8 A A; =# #? #B *=@?;K?; L # ?= = (?@ #> B?# ? B ; D> &= @# Q ; = #B # #B K; 8 A = < <C= #> A; =# D> #B ! 8 # @# ?! / ;8 < =# !?; #B ! (?@ # D =A !; !;?< #B C!#?< = &F@ ! ?! 88 0 NC?; < ?! < 8# !?; #B C! ?! #B # ; = (; =# ?! #B * =C! @#?;> = @?=9 !C< E #B = #B D?C= ?! #B ## 8 ?! 0 #B !8 ' D F# = #? #B ?#B ; K8 @ EB ; #B 9 ?<K => B ?; B 88 ! ## CK #B ; E?; " = K ;# @C8 ;8> # ?; #?;KB =4 / C8 E?; "4 < # =A B?C! # 0 #B = 0?A = @8?! #B ; = ! ; ; #> = &!# # !?; + ?; &= @# = ; = #B # #B @!?! / ;8 < =# < #B #B ;9 # =#B ?! JC= = #B?C! = 9 (F BC= ; = =>=#> #B; A =!# #B &FK?;# # ?= ?! 0 = > ;=4 = = =# #B # 8 = 8 =#B #B ;?! D KC# #? !#; @# F @C# ?= = !?; #B # ! @# ? B ; D> <K?E ; = C#B?; W #B !# ; = = A ; ?! #B 8 0 = = =C! @#?;> #? KK?>=# ! ; =# Q E # ; EB? < > ! W => 0 = => ;= #B > ! = ; > #? D FK?;# 4 ?; EB @B # =?# < ?! #B C # 8 = 8 =#B KK?>=# D> #B !?; @#4 = 88 * A #; # ? 88 @#?; = E # ; ; B ; L D> ; NC ; #? #B ;! !# =@ = @?=@C;L ; =@ 1#? #B ! ; =# ?! #B ! =C! @#?;> B ; = EB = #B > ; NC ; # = = @ ! !?; B ; !# ; #B ?<K => @ = =!#;C@# #B # => 0 = > ;= !8 ' D FK?;# 44 # 8 !?< = 8 E!C88 !?; #B ?<K => #? K ;! D !?; => JC A @?<K # =# #B FK?;# ; = ?E= ; ?! #B > ;= !?; #B 8C ?! 9#B ! < 4 EB ; ?! #B ?= B 8! #? D 8?=A #? #B ?<K => = #B ?#B ; B 8! #? #B K??; ?! #B / ;?@B = EB ; #B K ;#= ; ?! #B (?@ #> EB7? ; ! E #B = #B 1 =A ?< ?! &=A8 = B ! =# ! ; 8 K ## ;= ?! 8? #B =?# B #B ;#? < E #B = #B 1 =A ?< = EB @B < C!# D < ?! !! ; =# 8 =#B = D; #B !;?< #B ! K; !@; D D> #B !?; @# ?! / ;8 < =# %B ; !?; B #> E #B @ !?; ?= K?E ; = 4 C#B?; W6D #B =C! @#?;> #? < " #B ; 8? #B !?; FK?;# # ?= ' == ;8> ?! C@B D; #B = 8 =#B #B >; ?;? !8 ' D 9 ! D> #B ; ! K ;#= ; = &=A8 = = 8!? B [> = &!# # !?;!C ?& F# = #B K; 9

8 A 'A; =# 'D>'#B '!?; ' @#'?!'/ ;8 < =#'='
! ?C;'?!'#B ' ' =C! @#?;>'?!' B =A'#B ;'
0 = ' = 'B?C! ' @NC ; '?;'#?' B ' @NC ; '!; '
?!' 88' ! '(CKK8> '% F #?= ' = '?#B ;'KCB8@"'
DC; = '<K?! '?;'#?'D '<K?! 4#?' C@B'0 = '
= 'B?C! ' '#B ‖ 9' =C! @#?;>'B '# " ='?;'
!8 88'# " ' ='8?=A'8 !'!?;'#B 'K @'?!'=>=# ='?;'
<?; '> ; 9'!?;'#B 'K @C8 ;'C! ' = ' ; @'?!'#B '
! ' =C! @#?;>' = 'B ' #>'E #B' @'
!?; ' ? 'B ; D>' <K?E ;'#B '!?; '* !# ;'
= ' <D ; [?!'#B '! ' 0 = ='*=@?;K?; #?='#?'
< " 'D>90 E ' = ' @#'!?;'#B 'A?? '?!'#B '
< ='XK;? =A'#B !' @#' = 'D>90 E 'D '=?#
; KCA= =#'#?'#B '0 E '?!'#B '1 =A ?<'' = '#?'
KK?>=#' 8 '!;?<'# < '#?'# < 'E #B'K?E ;'#?'
#B '! ' 8 '#?'" K' = 'B?8 ' ?C;#'E #B ='#B '
!?; 'K8 @ 'EB ; '#B 'E?;"' ' 88; >'! ##'CK'
!?;'KC= B =A' ?!'8 ! ;' @; < ' = ' 8=NC =@ '
' ?<< ## 'D>'#B ;'?E=' (; =#' = '#?' @ '
=>' !! ; =@'! 8B=A'?C#D #C F#'#B <4' = '#?' <;'
K; !?=' = ' F @#'! = ' @@?; =A' #?'#B '0 E '?!'
#B '1 =A ?<' = '!?;'#B #' !! @#'#B 7 ' # ; '
= ' <D ; '#?'=?< = #' = 'KK?>=#' 8 ;" ' (;9'
‖ =#' + <K!# ; ' = '?#B ; ' < <D ; '?!' ?C;#'; 9'
[NC ! #4' E #B' 88' ?#B ;'*<<C= # 4'K?E ; 'Q'K; 9'
8 A 'A; =# ' ='! ?; '?!' 8 '?!' ;;?=> '
='#B ;' ?C;#' = '!?;'#B 'E 88' < = A =A'?!'
#B '!8?@"' ?!'#B '! ' 0 = =' =C! @#?;>' = ' 88'
< ## ; ' ; 8 # =A'#B ; #?' ' #>' = '&!8 # '

?='A ='#?'J?B='* ‖+?= 8 '?!')8 =@? 4' 8 FL
= ;'J ‖+?= 8 'B ' ;?#B ;' 8 F‖P d @+?= 8 '?!'
C@B #; @B # =4' 8 F‖'J ‖+?= 8 '?!'+ 8= !##' ?9' 0
= 8 'J ‖+?= 8 ' ='0 @B =#C <' ?= 8 'J ‖+?= 8 '
?!'*= ; A ='+C=@ ='J ‖" =? A' ='*= ; A ='+?L
= 8 ' '(# ;0" ;' B'0 ; @B' 8 F = ;'J ‖+?= 8 '
=' ; "8 ' = ' =AC ' ‖+?= 8 'K' (#;?= 4'D>'
#B ' ?<< ! ?='!?;' =NC ; =A' =#?'#B ' (8 CAB# ;'
?!'#B ')8 =@? < =' ' = ;' FK ; ' = '#B #' #'
' C!#' #' D ' ; = E '#?'#B 9' !! @#' =B ;E; ## ='
%B ; !?; 'B ‖ 7 'B AB' ?<< ! ?= ;' = '#B '
! '&!8 # '?!'/ ;8 < =#'+?'B ; D>' = E' = '
) ; =#'#B '! ' /;?# @# ?='#?'#B '! ' K ;!?='!?;'
#B ;' (@C; #>'!; <' 88' K# ?= '9 = '?#B ;'P8 A 8
F @C# ?= '!?;' 8' D# ' =>' < == ;'?!'E >'
EB # ? ;' >' = 'EB 8' B ' #>'D 'K8 ! '#?9
(A= !>'B ' ?> 8'K8 !C; ' = =#'#B <

%' = ' < #' =' ! ?C; '?!' (;'J?B='
)?; ?='?!'/ ;"'Q'J?B=')?; ?='?!' ?#B 9'
< >' A = #'J?B=' D ;= #B>'?!' > ='Q
?#B ;

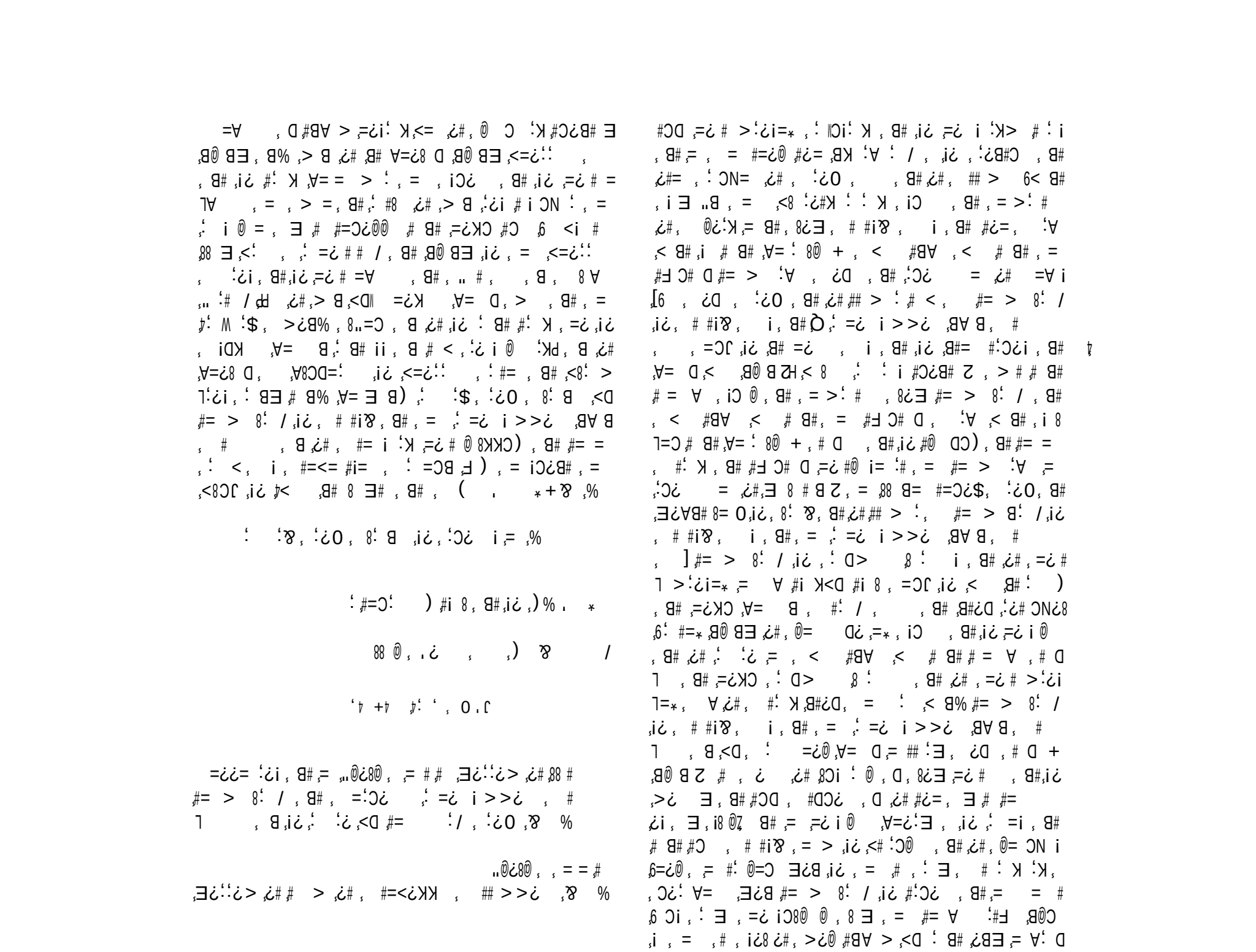
%' &+* ') '#B '&8 =#B' >'?!'JC8>' UU'
='#B?C! = '(F' BC= ; ' = '=>=#'! '> ;'
= =#'#B ' @#'?D# = 'D !?; '#B '0?; '?!'B '
'/; >' ?C=@ 8' #'#B '=!8 =@'?!'(‖'J?B='
)?; ?='?!'/ ;"' ='J?B=')?; ?='?!' ?#B < >'
A = #'J?B=' D ;= #B>'?!' > =4' 2 8B <'
)?;A 'J =' B; !8 =9'J = #‖' = '&8 W D #B' D ;9' 0
= #B 'B 'D;?#B ;T' = ' !# ; ' ;#BC;'!!?;D '?!'
8 =>' *! ?D 88' @" #' 8 @#' ?!'#B ' @ !8'
8 F‖' D ;= #B>'?!' > =4' = ' 8 F = ;'!!?;D '
?!' 8 @"#?C=' =?E' B ;'BC!D = '!?;'B ' =# ; !#'
< =# ?= =A4'#B #' EB ; ‖'#B ; 'E ' '/ # # ?='A ='
='#?'#B ' '0?; '?!'B ' # '/; >' ?C=L
@ 8' D>'#B ' '(‖'J?B=')?; ?='?!'/ ;"4' !?;'B <9'
8! ' = ' 9 ! A= >' @?=!# #C#' D>'#B '! 'J?B='
)?; ?='?!' ?#B < >'(B E =A'#B #'EB ; '#B '/ L
?= ;'B =A' =# =# ' @# ?=' A =!#'J?B=' D ;L
= #B>'?!' > ='2 88 <4')?;A 4'J =4' B; !# '44'
J = #' = '&8 W D #B' D ;= #B 'B 'D;?#B ; ' = '
!# ; 'D !?; '#B '0?; '?!' ?C=@ 88' = '(! ?='!?;'
+ @ ;= =A' = ' ; = =A' - j #?' ; K ;' = '< " '
CK'#B 'A; #' <= A ' = '8?!' C!# = 'D>'#B '
/ # # ?;! ; ' = '#B ;'K; @ ! ?; '#B;?CAB'#B ' 9'
@ !#'J < ' = ' 8 F = ;' D ;= #B '#B ;'# ;9'
=A' = '8 @ ; # =A'#B '+ @; #'?!'8?C! =A'#B '8 # '
0?; ' (8#?C='B '*=# ; @# ?=' ?C#' ?!'#B 'KCB8@"'
A !# ; ' = '8!?' A =!# ;#BC;'!!?;D '?!' 8L
=>' *! ?D 88' @" #' 8 @#' ?!'#B ' @ !# 8 F‖'
D ;= #B>' = ' 8 F = ;'!!?;D '?!' 8 @"#?C<'
=?E'B ;'BC D = '!?;'B ' =# ; !#'!?;'#B ;'!; C CL
8 =#'@?=@ 88=A' = ' " K =A'CK'?!'#B ' '+ L
@; #' >'EB @B'#B '/ # # ?= ; 'B 'D ='KC#'#?'
!#'@B7A ' = ' FK =! ' = '#B ' @# ?='B =A '
@?= ' ='#?'D ' D #'D !?; '#B '0?; '?!'(! ?='
%B >' !# ;' ; ?C ' = ' < #C; ' 8 D ; # ?='+ '
X =' ; K @#'?!'#B ' =AC8 ; #> '?!'#B '@ ! ` D>'#B

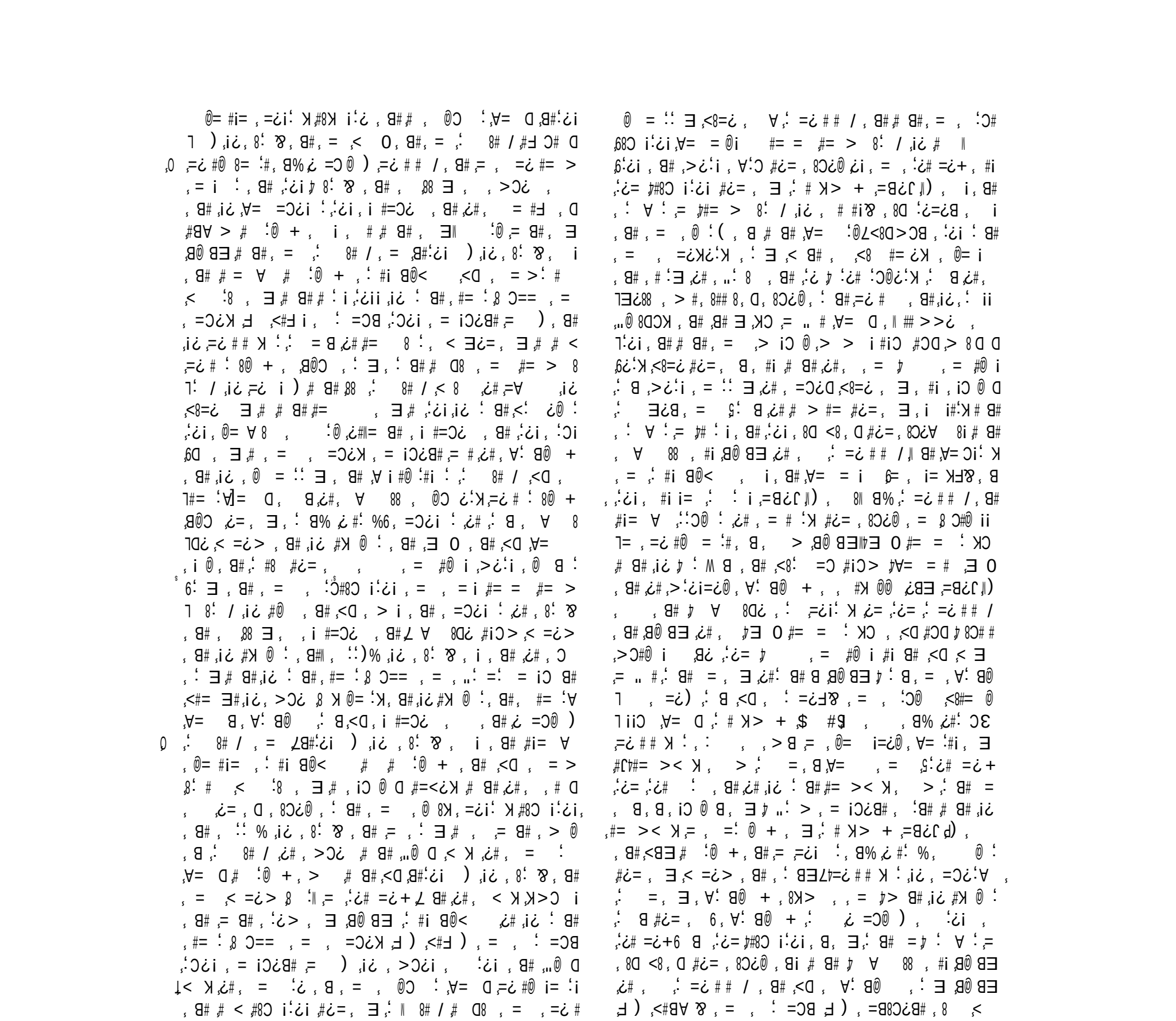
+ - + ' +' &+ ') '#B '&8 =#B' >'?!'JC8>'
?! ?B‖= 9' #B?C! = '(F' BC= ; ' = '=>=#>'! ' > ;
'+ .'+,' '88 0' # 'B AB' ?<< ! ?= ;' = '#B '&!8 # '
& ',* . ' /;8 < =#'B =A' ?= ; '%B #'#B '/;?# @ 9

U . S

s

)?

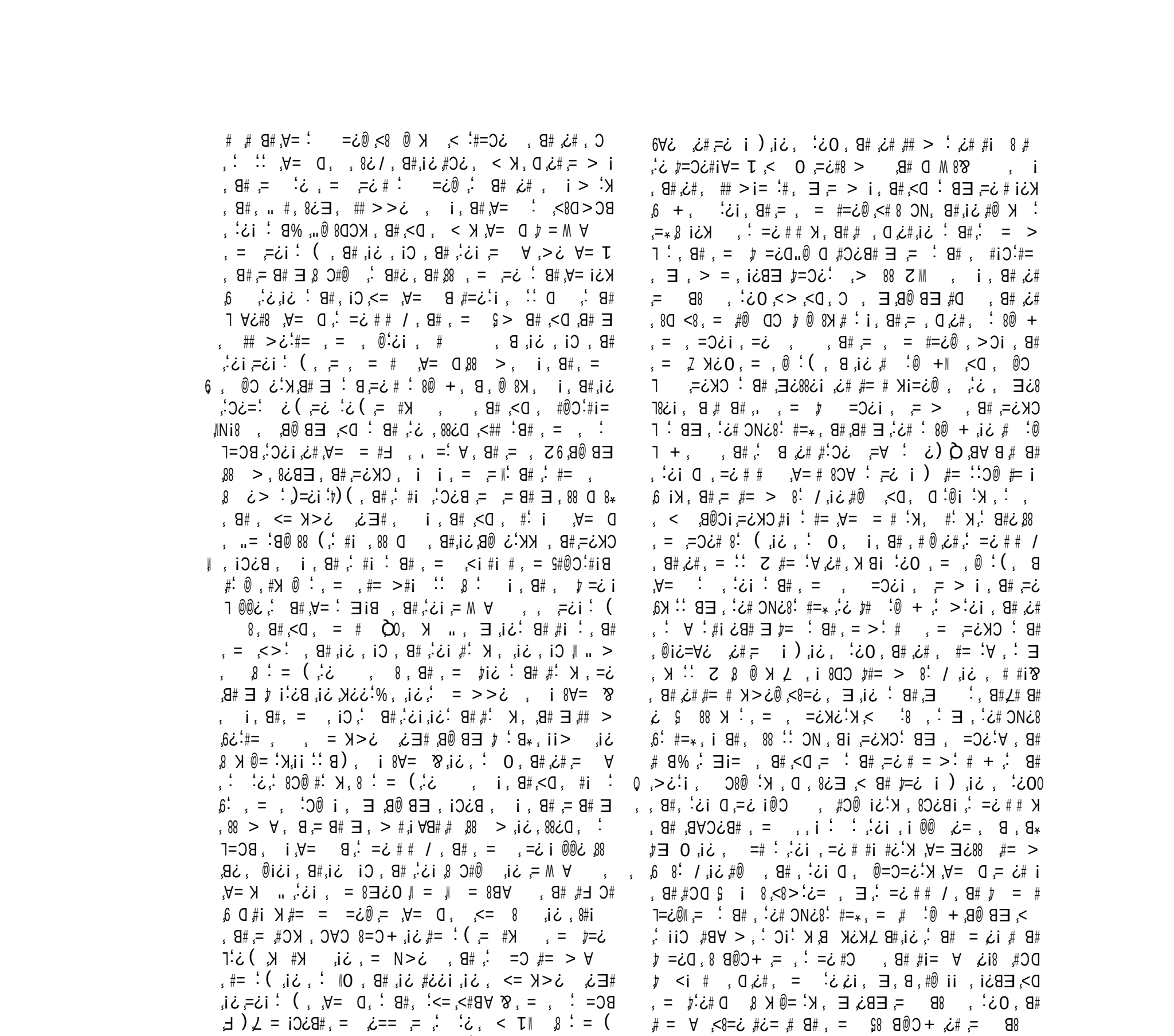




!' =>' C@B' K; # = ' + @8 ; # ?=' E ; ' #' E ' K ;#' ?!'#B ' #; =! @# ?=' EB @B' D =A'# " =' E >' D> #B ' !?; ' + @; #' 88' = C!#' ! 88' =' @?=! NC =@ % ;# ?' %B ' ! ' & ;8 ' = ' ?C=# ! ' 'A #' !?C< = ' !! @# ⅈ !;?<' / #8 ;' ! ;' F@ =A'# #B 9! !?C< ' ?!'%E =#>' #B?C! = ' < ;" ' = ' ==C 8' ; =# #B ; ?!'$?;' =?#' ?=8>' D>'#B ' !?; ' + @B ;A ' #B > A; =# '#B ' ; @ K#' ?!'#BK' K; =@ K 8' ?C< ' ?!'# =#> '#B?C! = ' < ;" ' = ' ==C 8' ; =#' #B ; ?!' BC#' 8 " 9 E > ' #' KK ; 'D>' / #8 ; ' ? #B' # " =' =' #B ' K;?@ ' #B #' !# ;' 8@C8 # ?=' < ' ?!' #B ' !?C< ' K > ' = ' < ' ? ;' #B ' B '' !?C< ' E ; ' K > ' K; =@ K 8' = ' ==C 8' ; =# ' = ' B ' =' #B?C9'4 ! = ' < ;" ' <?; ' !?;' EB @B' / #8 ;' B ' =?#B =A' #' 88' = ' EB #B ;' #B ' ! ' ?C=# ! ' D ' =>' =7' # ; !#' =' #B ' !?; ') !#' ?;' =?#' E ' =?#' #B ' NC !9' '# ?=' =A' #B ' + @B ;A ' ' D ;' #B #' !B ' ' ! A= >' D>' #B ' & ;8 ' #B ' +?= #?;' B ' ; @ ' ;# =' !?C< ' ?!' <?= >' NC 8 =#' #?' #B ' K; =9' @ K 8!?C< ' = ' D>A?= ' ==C 8' ; =# ' #B ; =' < =L # ?= ' = ' #B ; !?; ' #B ' ! ' ?C=# ! ' ' D =A' #B ' K ;!?=' #B #' ' ; @ ' #B ' <?= >' E ' K; =9' @ K 8>' 8> D8 ' D>' #B ' @#' ?!' / ;8 < =#' 3C ;#?' ' #?' #B ' #B; ' #B?C! = ' < ;" ' D =A' #B ' #E?' > ; ' = ' 'B 8! ' ==C 8' ; =#' !;?<' ;# < ' = ' #B?C9' ! = ' (F5 BC= ; ' = ' & AB# ' #B; ' #?' 2 B # C=L >' = ' #B?C! = ' (F' BC= ; ' = ' & AB# ' (F4' D?#B' #B ' & 4;8 ' = T#B ' ?C=# ! ' <C!#' D ' 8> D8 ' $?;' 8D #' #B ' !?; ' @B ;A ' ' D ;' #B #' #B ' ?C=# ! ' ; @ ' !?C< ' NC 8 =#' #?' #B ' !?; ' K; =@ K 8' !?C< ' ?!' #E =#>' #B?C! = ' < ;" ' = ' ==C 8' ; =#' #B ; ?!' !;?<' 2 B # C= >' ?= ' #B?C! = ' (F' BC= ; ' & AB#>' (F' > #4D>' #B ' + @B ;A =A' K ;#' #B ; ?!' B ' + @B ;A ' =?#' ?=8>' #B ' K; =@ K 8' !?C< ' D8 #' 88ⅈ#B ' D>A?= ' ==C 8' ; =# 4' ; =A' ?E =A' C=K > ' (?' #B #' =A' #B ! '#E?' > ; ' = ' 'B 8! ' ==C 8' ; =#' E '0; =A' C=K > 7 ' = ' CKL ?=' #B #' A;?C= ' / #8 ;' D =A' !?C= 7'8> D8 ' D>' #B ' !?; ' + @; #' #?' ; !?C= ' #B ' < ' D>' #B #' ## ' ; !?=' #B #ⅈB ' E ' !?C= ' 8> D8 ' #?' >@B ;' !?;' 0#B ' ! '#E?' > ; ' = 9 ' B 8! ' ==C 8' ; =#' %B ' ! ' & ;8 ' = ' ?C=# ! ' ?CAB#' #?' D ' !?C= ' 8> D8 ' #?' K >' #B ' ! #= ' #?' B <' 4 K 8>' =A' #B 9' !??< ' [K > ' = ' #B ' !! @#' < ' ? ;' #?' #B ' ?C=# ' D>' ! A ' =A' #B ' & ;8 ' ?!' ;; ' <?= >' = ' #B ' KK; ! =A' ?!' #B ' & # ' ?!' (!?;#B' D>' #B ' 8@CL 8 # ?=' @N=# = ' =' / #8 > ; ' ? #B' #B ; ' E ' ' 7' 0 <C@B' 'K > '#D ' K; =@ K 8' !?C< ' = ' ''#B ' D>L A?= ' ==C 8' ; =# ' =@ ' ;# < ! ' = ' #B?C! = ' (F' BC= ; ' Q' & AB#>' #B; ' = ' D? ' =' #B?CL ! = ' < ;" ' <?; ' ' ! ' ' (?' #B #ⅈCK?=' #B ' ! ' A;?C= '#B ' ! ' & ;8 ' = ' ?C=# ! ' ?CAB#' #?' 5D ' !?C= '8> D8 ' !?;' #B ' ! ' #E?' > ; ' = ' ' B 8! ' ==C 8' ; =# K; @ =A' 2 B # C= >' = ' #B?C! = ' (F' BC= ; ' & AB#>' (F' 3C =#?' *#' E ; ' ;>' ; 9' !?= D8 ' #B ' ! ' & ;8 ' = ' ?C=# ! ' E ; ' < '8> D8 ' #?' #B ' ! ' / #8 ;' !?;' FK =! ' =' ! = =A' #B ' ! ' @# ?=' D?#B' D !?; ' #B ' (! ?=' = ' / ;8 ;= =#' =A' #' E ' K; =@ K 8>' CK?=' #B #' @@?C=#' #B #' B T >; ' #' #B ' ! ' FK =! ' (F#?' ' #?' #B #' K; # =@ #B #' #B ' ?C=# ! ' E ' @?=# =#' #?' ; K?= ' / #8 ;' ' #?' #B ' & ;8 ' ?!' ;; ' <?= >' #' E ' =!E ; ' %B #' #B #' E ' D!?8C# 8>' <K; @# @ D8 ' !?;' !B ' @?C8 ' =?#' #B =' KC# / #8 ;' =' #B ' ! < ' @ ! ' B ' E ' =#?' EB =' B ' A; =# ' ;' =' ! A= # ?=' #?' #B #' D#' !?;' #B ' & ;8 ' ?!' ;;' = ' B ' C# ?= ; ' E ; ' #B =' 8 ' = ' !' 8 A =@ ' B ' D =' #B =' C! ' #B ' <?= >' < AB#' B ' D =' ; @? ; ' EB ; ' #D ' ! ' & ;8?' ?!' ;;' = ' 88' #B ' C# ?= ; ' D =A' ; 8' > ; ' @ !# = ' =?= ' ; K; ! B# =A' #B <' B ' @?C8 ' =?#' #B =' @@ K#' ?!' #B ' #' ! @C; #>' ' ' K ;#' ?!' #B ' !?C< ' C ' #?9' B <' = #B ;7' E ' #' !?' KK?>=# ' D>' #B ' + @; #' ?D# = ' #' >94' @B !# ; ' =!# ; @ ' A =!#' #B ' & ;8 ' = ' / #8 ;' 0 >' EB @B' ' / #8 ;' ' ?; = '#?' < " ' K >< =#' ?!'#B ' !?; ' (?C< ' #?' >@B !8 ;' ?' #B ' & ;8 ' 9 ?; = ' #?' ; !?C= ' = ' K >' D @"' #B ' ! < ' #?' / #8 ;' ' #B ' ! ' ; !E ; ' K;?K?;#' %B ' EB @B' / # # ?=' A =' ='D>' #B ' ' (ⅈJ?B=' + <K!# ;' ?!' / #8 ;' A =!#' #B ' '& #8 ' = ' ?C=# ! ' +?C 9' A ;' ?!' (!?;#B' E #B' #B ' !?; ' @#' = ' 2 ;; = ' ?!' / ;8 < =#' !?;' # # ?=' !?88?E =A' #B ;CK?=' ' E #B' #B ' ; K @# ' &F @C# ?= ' #B ; ?!' E #B' #B ' !?; ' ! A= # ?=' A; =# ' D>' #B ' ' & ;8 ' ?!' (!?;#B' =' ! ?; ' ?!' #B ' ! ' ?C=# ! ' +?C A ;' #B ; ?!4' = ' #B ' !?; ' + @B ;A ' A; =# 'D>' #B ' ! ' ?C=# ! ' 2 #B' @?=! =#' ?!' #B ' 8& ;8 ' #?' #B ' 9' (ⅈJ?B='9*#! <K!# ;4' E #B' #D ' !D;! ' + @; #' ?!'0 / ;8 < =#' #' #B ' =!# =@ ' ?!' #B ' ! ') ?=' (@?# ?!ⅈ > B !# ;' A =!#' #B ' ' (ⅈJ?B=' + <K!# ;' = '#B ' '& ;8 ' ?!' (!?;#B' E #B' #B ' !?; ' @#' K; =@ K 8' !?C< ' ?!' #E =#>' #B?C! = ' < ;" ' = ' ; =#' #B ; ?!' !;?<' 2 B # C= >' ?= ' #B?C! = ' (F' BC= ; ' & AB#>' (F' > #4D>' #B ' + @B ;A =A' K ;#' #B ; ?!' B ' + @B ;A ' =?#' ?=8>' #B ' K; =@ K 8' !?C< ' D8 #' 88ⅈ#B ' D>A?= ' ==C 8' ; =# 4' ; =A' ?E =A' C=K > ' (?' #B #' =A' #B ! '#E?' > ; ' = ' 'B 8! ' ==C 8' ; =#' E '0; =A' C=K > 7 ' = ' CKL ?=' #B #' A;?C= ' / #8 ;' D =A' !?C= 7'8> D8 ' D>' #B ' !?; ' + @; #' #?' ; !?C= ' #B ' < ' D>' #B #' ## ' ; !?=' #B #ⅈB ' E ' !?C= ' 8> D8 ' #?' >@B ;' !?;' 0#B ' ! '#E?' > ; ' = 9 ' B 8! ' ==C 8' ; =#' %B ' ! ' & ;8 ' = ' ?C=# ! ' ?CAB#' #?' D ' !?C= ' 8> D8 ' #?' K >' #B ' ! #= ' #?' B <' 4 K 8>' =A' #B 9' !??< ' [K > ' = ' #B ' !! @#' < ' ? ;' #?' #B ' ?C=# ' D>' ! A ' =A' #B ' & ;8 ' ?!' ;; ' <?= >' = ' #B ' KK; ! =A' ?!' #B ' & # ' ?!' (!?;#B' D>' #B ' 8@CL 8 # ?=' @N=# = ' =' / #8 > ; ' ? #B' #B ; ' E ' ' 7' 0 <C@B' 'K > '#D ' K; =@ K 8' !?C< ' = ' ''#B ' D>L A?= ' ==C 8' ; =# ' =@ ' ;# < ! ' = ' #B?C! = ' (F' BC= ; ' Q' & AB#>' #B; ' = ' D? ' =' #B?CL ! = ' < ;" ' <?; ' ' ! ' ' (?' #B #ⅈCK?=' #B ' ! ' A;?C= '#B ' ! ' & ;8 ' = ' ?C=# ! ' ?CAB#' #?' 5D ' !?C= '8> D8 ' !?;' #B ' ! ' #E?' > ; ' = ' ' B 8! ' ==C 8' ; =# K; @ =A' 2 B # C= >' = ' #B?C! = ' (F' BC= ; ' & AB#>' (F' 3C =#?' *#' E ; ' ;>' ; 9' !?= D8 ' #B ' ! ' & ;8 ' = ' ?C=# ! ' E ; ' < '8> D8 ' #?' #B ' ! ' / #8 ;' !?;' FK =! ' =' ! = =A' #B ' ! ' @# ?=' D?#B' D !?; ' #B ' (! ?=' = ' / ;8 ;= =#' =A' #' E ' K; =@ K 8>' CK?=' #B #' @@?C=#' #B #' B T >; ' #' #B ' ! ' FK =! ' (F#?' ' #?' #B #' K; # =@ #B #' #B ' ?C=# ! ' E ' @?=# =#' #?' ; K?= ' / #8 ;' ' #?' #B ' & ;8 ' ?!' ;; ' <?= >' #' E ' =!E ; ' %B #' #B #' E ' D!?8C# 8>' <K; @# @ D8 ' !?;' !B ' @?C8 ' =?#' #B =' KC# / #8 ;' =' #B ' ! < ' @ ! ' B ' E ' =#?' EB =' B ' A; =# ' ;' =' ! A= # ?=' #?' #B #' D#' !?;' #B ' & ;8 ' ?!' ;;' = ' B ' C# ?= ; ' E ; ' #B =' 8 ' = ' !' 8 A =@ ' B ' D =' #B =' C! ' #B ' <?= >' < AB#' B ' D =' ; @? ; ' EB ; ' #D ' ! ' & ;8?' ?!' ;;' = ' 88' #B ' C# ?= ; ' D =A' ; 8' > ; ' @ !# = ' =?= ' ; K; ! B# =A' #B <' B ' @?C8 ' =?#' #B =' @@ K#' ?!' #B ' #' ! @C; #>' ' ' K ;#' ?!' #B ' !?C< ' C ' #?9' B <' = #B ;7' E ' #' !?' KK?>=# ' D>' #B ' + @; #' ?D# = ' #' >94' @B !# ; ' =!# ; @ ' A =!#' #B ' & ;8 ' = ' / #8 ;' 0 >' EB @B' ' / #8 ;' ' ?; = '#?' < " ' K >< =#' ?!'#B ' !?; ' (?C< ' #?' >@B !8 ;' ?' #B ' & ;8 ' 9 ?; = ' #?' ; !?C= ' = ' K >' D @"' #B ' ! < ' #?' / #8 ;' ' #B ' ! ' ; !E ; ' K;?K?;#' %B ' EB @B' / # # ?=' A =' ='D>' #B ' ' (ⅈJ?B=' + <K!# ;' ?!' / #8 ;' A =!#' #B ' '& #8 ' = ' ?C=# ! ' +?C 9' A ;' ?!' (!?;#B' E #B' #B ' !?; ' @#' = ' 2 ;; = ' ?!' / ;8 < =#' !?;' # # ?=' !?88?E =A' #B ;CK?=' ' E #B' #B ' ; K @# ' &F @C# ?= ' #B ; ?!' E #B' #B ' !?; ' ! A= # ?=' A; =# ' D>' #B ' ' & ;8 ' ?!' (!?;#B' =' ! ?; ' ?!' #B ' ! ' ?C=# ! ' +?C A ;' #B ; ?!4' = ' #B ' !?; ' + @B ;A ' A; =# 'D>' #B ' ! ' ?C=# ! ' 2 #B' @?=! =#' ?!' #B ' 8& ;8 ' #?' #B ' 9' (ⅈJ?B='9*#! <K!# ;4' E #B' #D ' !D;! ' + @; #' ?!'0 / ;8 < =#' #' #B ' =!# =@ ' ?!' #B ' ! ') ?=' (@?# ?!ⅈ > B !# ;' A =!#' #B ' ' (ⅈJ?B=' + <K!# ;' = '#B ' '& ;8 ' ?!' (!?;#B' E #B' #B ' !?; ' @#' N!' / ;8 < =#' *8 !@ = =A' ! = ' = '!?;! C8#C; ' =' #B ' > ;' = ' #B?C! = ' (F' BC= ; ' = ' B>=#>' E #B' #B ' !?; ' < ##' ?!' / ;8 < =#' ?!' #B ' ! ' < ## ;'# ' #B ' ?< < ## '!?;' (@C; #>' ?!' #B ' 1 =AL ?<' = ' ; ! ; =@ ' < ' D>' #B <' #?' #B ;' (CD9' ?< < ## '!?; ' E #B' #B ' 88 A =@ ' =!E ; ' K8> ' +CK8> ' %; K8> ' 3C ;CK8> ⅈ 3C =#C9' K8> ' = ' B 88' KC# ' D? ' E; ## =' K;?K?= ' D>' #B ;' K;?@C; #?; ' D !?; ' #B ' ! ' (CD9 ?< < ## ' =' < == ;' D? ' < =# ?= ' E #B' #B ' K?;#' D? T E; ## =' < ' D>' #B <' =' #B ' ! ' < ## ;' = ' #B ' ! ' ?< < ## '!?;' (@C; #>' ?!' #B ' 1 =A ?<' #B ;' KK;?D # ?=' #B ; ?!' = ' # ; < = # ?=' =' #B ' ' < ## ;' =' < == ;' = 9#?' #B ' !! @#' !?; ' E #B' #B ' !?; ' / # # ?=' A =' =' D>' #B ' ! ' ?C=# ! ' +?C A ;' ?!' (!?;#B' = ' =!E ; ' D? ' E; ## =' A =' =' #B ; #?' D>' #B ' ! ' (ⅈJ?B=' + <K!# ;' D =A' CK?=' #B ' >' = ' # ' ?!' #B ;' K! ! =# ' #' 8 =#B' B ; ' ! =' = ' @?=! ; ' D>' B ' # ' B AB' ?<;= ! ?= ;' = ' #B ' ' &!# # ' ?!' / ;L 8 < =#' = '%B >' #B ; E #B' D =A' E 88' = ' ; K 8>' ! ' ' #>' = ' #B ' ! ' &!# # ' ?!' / 9' 8 < =#' > ' ; !C! ' = ' B ; D>' ; !C! ' #B ' ! ; ' ?!' #B ' / # # ?=' A =' =' D>' #B ' ! ' ?C=# ! ' +?C L A ;' ?!' (!?;#B' a= ' B ' KK;? ' = ' B ; D>' 9 KK;? ' ?!' #B ' !?! ' ; K?;#' ?!' #B ' ?< < ## ' !?;' (@C; #>' ?!' #B ' 1 =A ?<' = '#B ;' (C19 ?< < #9' # ' =' #B ' < ## ;' D? ' < =# ?= ' = ' #B ; !?; ' + @ ;= ' = ' ; = ' =?# ?=8>4' #B T! ' 1 == #B' ' ' 7' ⅈ

<<3)

&;8?!(!?;#BDC#8!?#B?!*!?D88?C9#!?+?CA;?!(!?;#B?B?#B;=?!A=>?=?EB?D>?#B?+@B;A?D??<=#?=?A;=#L?#B?;@K#?!?#B?!?=<?D??=?#B;=0@?=#=?#?7#B?(P?J?B=4+<K!#;?!/#8;?!#B(?=<?D!(=?#B?C9!=?!?C;?BC=;#B?=?(?F?BC=;?&AB#>?(F?K?C=??K;#?!?#B?!?;?(?C<?!?#E=#>?#B?C!?<;"?=?==C8;=#?#B?;?!?=



= =# #B ? ?<K8 =# < ? D># 8 F = ;?) ? ?<< ! ?= ;? !?;? ; <# !8 = ? A =!# J?B=? + # ?<< ! ?= ;? !?;? (# ;8 =A? !?;? = @ =A? #B ? ! ? 8 F = ;?) ? !?;? B ? ?# ? =? #B ? @# B =A =A? #B ? == F ? F@ ! ? ?=? 8# #?? #B; ? K == ? ?=? #B ? K =# ?!? 0 NC?;? ' K?=? EB @B? #B ? + K?! # ?= ? ?!? ! ; 8? <D ; ? ?!? / ;8 < =# = ? #B ? + K?! # ?=9? ?!? #B ? ! ? 8 F = ;?) ? =? !CKK8 < =# # @C<? =?# ? D =A? # " =4 ? #B ? ! ? K?! # ?= ? 88? 8> =A? =? /;?@ ? <?; ? !C88>? D ;? = ? EB @B? D =A? CK?=? #B ? >? = ? # ? ?!? #B ;? K; ! =# ? B ; ? ; ? = ? @?=! ; ? D># B ? # ? B AB? ?<< ! ?= ;? = ? #B ? &!# # ? ?!? / ;8 < =# X#B ? !?;! ? K;?D # ?=? D L =A? # " =? =? #B ;? ?E=? K; ! =@ ? #B >? &FK 88 ? = ? B ; D># &FK 88T? #B ? ! ? J?B=? + @"? !;?<? D =A? ? < <D ;? ?!? / ;8 < =# T = ? A; =# ? = ? B ; D>#) ; =# ? 2 ;; = ? #?? #B ? ! ? C;AB? ?!? (# ;8 =A? #?? 8 @# =?#B ;? K ;!?=? #?? ; K; ! =# #B <? =? #B ? K; 9? ! =# / ;8 < =#

7-73 31-? G 44"873,? "6? 31-? 24S,W . 27? "6? 31-? "!-00

+ & & +? #B # #B ? ! ; 8? (# # ? !# ;? / ; > ; 4? ; <? ? #?? #B ? C!C 8? K8 @ ? #?? 8 @# #B; ? ?!? @B? (# # ? #?? D ? ?<< ! ?= ; ? !?;? # " =A? =? #B ? @L @?C=# ? ?!? #B ? % @" < =? ?!? #B ? / ?8 ? <K?! ? =? #B T > ;? = ? #B?C! = ? (F? BC= ; ? = ? =>=#>? #B;

% &? 0?; ? / ; ! =# D>? ?; ;? ?!? B ? L # ? ?<< ! ?= ;? ?C;= ? #B ? / < =# # 88? #?? <?;;? ? # # =? ? @8?@"? =? #B ? !?; =??=

-4" . W . -7523%"7? %7? 62Q"3%+,? "6? -+%"3,? ", : %32!

%? &+* ') ? #B ? ! !# =#B? >[?!? 8!0? = ? #B?C! = ? (F? BC= ; ? = ? =>=#>? ! ? > ; ? = =# #B ? =8?! 8? A =? =? = ? K; ! =# ? #?? B ? # ? B AB? ?<< ! ?= ;? = ? #B ? &!# # ? ?!? / ;8 < =# D>? #B ? < = !#; #?; ? ?!? ; ?# ? ? L K # 84? =? D B 8! ? ?!? #B ? K??;? #B ; ?!? =# ?= =A? #B # # E ? =?#?C;8>? "=?E=? B?E9 8 ;A ? = ? ; @B? ? +?# # ?=?) ?;A ? ; ?# < ? !?;? !?C= =A? = ? =# ;# = =A9?!? #B ? ! ? ? K # 8? EB @B? > #?#B;?CAB? #B ? ; ?C ? @@ =# ? = ? < !?;#C= ? E ? !?;? ? # < ? ? <K;? K ;?C ? #B # =? #B ? > ;? = ? #B?CL ! = ? (F? BC= ; ? = ? ! !#>? & AB#? EB =? #? E ? D;?CAB#? #?? ? ! #8 < =#4 #?E ? ?=8>? D8 ? #?? < =# =? (F#>? K??;? B 8 ; =? %B #? ! =@ ? #B #? # < ? #B;?CAB? #B ? ; ? ?!? #B ? A #; #? ? = ? = !# ; ? ?!? & =L DC;AB? # ? < = !#; #?; 4 #B ? ; = E? #B ; ?!? B #B? D =? !?? E 88? <K;? =? #B #? #? K; ! =# #? =# ;# = ? = ? BC= ; ? = ? #B ;#>? B 8 ; =4 = ? ? 88? ?=? #B ? A;?E =A? B = 4 EB ; D># #? E ? D @?< ? ? <?!# K;?! # D8 ? !?C= # ?=4 ? E 88? ? =? ?;= < =# #?? #B ? # ?=? = ? ! =A? =? 88? # ?= ? !?;? #B ? =@?C; A L < =# D!? C@B? K ?C ? E?;" ? ? K # 8 ? E ; ? !; ? ?!? ;? *< K?! # ?= ? = ? #B # # E?8 ? D ? 9 =AC8 ;? =# A ? #B?CAB? =? #! 8! ? ? !< 88? < ## ;4 #?? #B

K??;? ?!? ; ?# ? B?8K # 8? #?? D ? !; ? ?!? 88? F@ ! ? = ? ?#B ;? *< K?! # ?= ? 8 ? ?=? ?;? #?? D ? 8 ? ?=4 ?=? ; ="L =A? D ;4 = ? 8 ? @?=!C< ? D># #B ? K??;? E #B =? #B ? 8 ? ? K # 8? %B ? K; ! =# == F ? F@ ! ? ?!? #B ? 8 NC?; ? @?=!C< ? #B ; =? =?# &F@ =A? # =? K?C= ? !# ;8 =? K ;? ==C<? %B ; !?; ? BC< D8># @; =A? #B # #B # B AB? = ? B?=?; D8 ? ?C;#4 E?8 ? A ;#?# #?? #B ? ! ? ? K # 8? = ? K??;? #B ; ?!4 =? F < K# ?=? !;?<? #B ? ! ? F@ ! ? = ? *! K?! # ?=? 8 ? ?=? ?;? #?? D [8 ? ?=4 = ? #?? ?; =? #B ? ! < ? #?? D ? =! ;# =? =>? @# #B # *B?C8 ? D ? < ? !?;? #B ; !# ;? D?C# #B ? ! < ? ? #B ? ! ? <?; 8? D ; ? 2 B @B? D =A? CK?=? #B ? #E 8 #B? =!# =# ; < ## ? #?? #B ? ?<< ## ? !?;? (@C; #># ?!? #B ? 1 =A ?<? %B W># E ; [?!? ?K = ?=? #B # =? F <K# ?=? !;?<? #B ? E #B =? &F@ ! 7? = ? *< 9? K?! # ?=? 8 ? ?=? ?;? #?? D ? 8 ? ?=? 88 ?C8 ? D ? A; =# ? 0 #?? #B ? / # # ?= ; ? = ? #B # #B ? 8 < ? *B?C8 ? ` ? =L ! ;# =? =>? @# #B # *B?C8 ? D ? < ? !?;? J W !# ;? #B ; = =#T 2 B @B? D =A? B ; ? D># B ? # ? B AB? ?<< ! ?= ;? = ? #B ? ! ? &! 5 # ? ?!? / ;8 L < =# %B >? @?<< = ? = ? B ; D>? ; @?<< = ? ; ?# ? B? K # 8? = ? #B ? K??;? #B ; ?!? #?? #B ? 0?; W ?!? B ? [? %B ! C;># !?;? #B ;? &F <K# ?=? !;?=# #B ? E #B =? &F@ ! ? Q <K?! # ?=? 8 ? ?=? ; ="? =A? D ;? Q 8 W

A7 ? ? B

/ & (? ? ?88 ? @ 88 ?

*1 ' %(? ?!? #B ? 8 !# (;C=# ;

% &? ? ? ?!? #B ? #B; ? &!# # ? K?;# ? #B ;? ! @@@<;! ? ; 8? &8 @# ?= ? !?;? C # =A? #B ? @@?C=# ? ?!? #B 9? *T @" < =W % @" < =? ?;? ?88 @#?; ? !? #B ? ?8 ? / ?8 ? = ? D =A? ?!? #B ? 8 ? ; ? #B >? E ; ? ?; ; ? #?? D ? =A;?! ? =? #B ? @# ? = ? ?<< ! ?=? 7

/ 2 & ? A =? #?? #B ? ? ?<< ! ?=? #?? 88T !?;? =? @@?C=# ?!? #B ? ;#B9<?= >? = ? #B ? #B; ? ?= #B ? ! ? A =? #?? #B ? !! @ ; ? ?!? #B ? ;<>? =? #B T> ;? = ? #B?C! = ? (F? BC= ; ? = ? =>=#> W

& * 0? = =# #B ? F@ ! ? ; 4 = ? #B ? 8 !# R 7-73 #8 ? ;# @8 ? #B ; ?!? < ## ? #?? #B ? 0?; ? ?!? / ; >? ?C=@ 8 #?? ?? #B ; =? ? #B >? B?C8 ? ! = ? C!# ?

%? @?=@ ;= =A? #B ? BC;@B

' ? (& *) ? 0 +? D =A? =! D8 ? ?!? 7 ? #B ? BC;# = ? < @B !! ? #B # < >? =!C ? CK?=? #B ? FK?! =A? ?!? #B ? K ?K8 ? < = ? #?? #B ? *=!8C =@ ? ?!? C@B? = # ; W EB?? ; !C ? #?? A ? #B ? K;??!! ? ; 9? ? NC ; ? D># 0 E? ?!? #B ;? A?? ? !! @# ?=? #?? #B ?)?97 ;=< =# = ? E #B 88? ! ;?C ? #B # =? #B ? ! ; # K8 @ ? 88? A =#8 ? Q ! ? #B? ? !B?C8 ? D ? C! ? #?? W

? , ? 0

!# ;ʻ !8 88ʻ =ʻ 88ʻ C;AB 4ʻ EB ; ʻ #B ʻ C;ABʻ B #Bʻ =ʻ K ;# @C8 ;ʻ *<K?! # ?=ʻ ?=ʻ < 8#ʻ ?;ʻ NC?; 4ʻ D ʻ #E =#>ʻ AB#ʻ K == ʻ !?;ʻ #B ʻK =#4ʻ #?ʻ D ʻK > ʻD>ʻ #B ʻ DC> ;ʻ #?ʻ #B ʻ =#= ;ʻ ?;ʻ % K!# ;4 = ʻ =ʻ 88ʻ ?#B ;ʻ K8 @ 4ʻ D?#Bʻ #?ʻ0 C;ABʻ ?;ʻ 0 = E ; 4ʻ #E?ʻ !8 ' 8 =Aʻ #B ʻK =# ʻ 2 #Bʻ ;# ! @ # ?=ʻ #B #ʻ #B ʻ =#L = ;ʻ #; = A; ! =A4ʻ D>ʻ ! 88 =Aʻ C= ;ʻ #B ʻ ! ʻ ; # 47ʻ !8 'ʻ D ʻ !>= ʻ D>ʻ #B ʻ ! ʻ ?<< ! ?= ;ʻ ʻ =ʻ #B ʻ !C<Y?!ʻ # =ʻ K?C= ʻ !@?#ʻ #ʻ #B 7 =!# =@ ʻ ?!ʻ =>ʻ 0?#B ;ʻ D; E ;ʻ ?;ʻ ?#B ;ʻ ?<K8 = ;ʻ #?# ʻNC?# ʻ #?ʻ D ʻ KK8 ʻ D>ʻ #B ʻ ! ʻ ?<< ! ?= ;ʻ !?;ʻ K ?C ʻ = ʻ KCD8 @"ʻ C! 4ʻ E #B =ʻ #B ;ʻ ; K @# ʻ B ; 5 = ʻ !C;#B ;4ʻ D ʻ #B ;ʻ KC#ʻ C= ;ʻ C!! @ =#ʻ (@C9ʻ ʻK #>ʻ #?ʻ ?D! ; ʻ#B ʻ ;C8 ʻ !?;ʻ B ; !# ;4ʻ ?;ʻ !ʻ B ʻ =9ʻ =?#ʻ ! = ʻ C; #>4ʻ @B ;A ʻ#?ʻ D; Eʻ =ʻ # < ʻ@?< =A5ʻ #ʻ #B ʻ AB#ʻ ?!ʻ #B ʻ !! ʻ ?<< ! ?= ; ʻ = ʻ !C;L #B ;ʻ B ʻ #>ʻ E #Bʻ @ ⅈ = ʻ @?=! =#ʻ !?; ʻ +?#Bʻ B ; D>ʻ + @8 ;ʻ Q &= @#4ʻ #B #ʻ !ʻ =>ʻ D; E ;ʻ =ʻ C!!ʻ #?ʻ D; Eʻ !?;ʻ (8ʻ Q B =Aʻ ! ''ʻ A ʻ? ;ʻ D; E =Aʻ !#! ;ʻ #B ʻ #ʻ ?!ʻ #B ʻ @#ʻ E #B?C#ʻ =ʻ 8L 8?E =@ ʻ =ʻ E; # =Aʻ !;?<ʻ #B ʻ ?<< ! ?= ;ʻ ?!ʻ &F9ʻ ! 46!?;ʻ A?? ʻ = ʻ ! =ʻ @ C! 4ⅈ #B ʻ ! ʻD; E ;ʻ B ''ʻ =?#ʻ B ʻK ;< ## ʻ#?ʻ D; Eʻ !?;ʻ @B =A 4ʻ !?;ʻ #B ʻ K @ ʻ ?!ʻ ! ʻ> ;ʻ #B ; !# ;4ʻ DC#ʻ !8 88ʻ D 4ʻ = ʻ ʻB ; D>ʻ @B ;A ʻ = ʻ; = ; ʻC=@ K D8 ʻ#? ?ʻ#B ʻ ! < 5 ʻB" 2 ! ʻ #ʻ ʻB ; D>ʻ (# #C# ʻ = ʻ ; = ʻ#B #ʻ =?ʻ K ;!?=ʻ EB #!? ;ʻ EB?ʻ B ʻ=?#ʻ D =ʻ =ʻ C! ʻ#?ʻ ʻ D; Eʻ !?;ʻ #B ʻ ! ; @ ʻ ?!ʻ #B <! 8 4ʻ = ʻ #B ;ʻ !! 9ʻ < 8>ʻ =ʻ # FB ⅈ D>ʻ K !#4ʻ !8 88ʻ K; !C< ʻ #?ʻ D; Eʻ !# ;ʻ #B ʻ ! ;!85ʻ >ʻ ?!ʻ (K# <D ;ʻ = F#ʻ #?ʻ @?< 4ʻ ʻ#B ;ʻ ?E=ʻ = ʻ #B ;ʻ ! < 8 ʻ C! ʻ = ʻ !ʻ %ʻ @?=#; 9ʻ % =4ʻ #B #ʻ %ʻ *B ''ʻ ! ʻ 8> D8 ʻ =ʻ K >< =#ʻ ?!ⅈ#B ʻ 8C ʻ ?!ʻ EB #ʻ #B >ʻ *B '9 D; Eʻ = ʻ B ʻ #>ʻ E #Bʻ ?=! =#7!?; ʻ +?#Bʻ ; =ʻ #B ʻ ! ʻ ?<9ʻ = ! ?= ;ʻ #?ʻ < #ʻ #B ʻ ! ; # %C >ʻ ?!ʻ (K# <D ;ʻ = F#ʻ #ʻ #B ʻ B ʻ C;ABʻ ?!ʻ ;>ʻ (B ;ʻ ; K @# 4ʻ = ʻ !# ;E ;ʻ CK?=ʻ #B ʻ ! ; # %C >ʻ ?!ʻ 8"ʻ ?= #Bʻ EB ;ʻ #B >ʻ *B ''ʻ KK?>=#ʻ 7 = ʻ #ʻ ʻ B ; D>ʻ K @ 8>ʻ K;? 4ʻ #B #ʻ !ʻ #B ;ʻ ?88 @#?;ⅈ 7?;ʻ $;< ;ʻ *B ''ʻ K; !C< ʻ #?ʻ ; ! ʻ ?;ʻ 8 >ʻ #B ʻ ! ʻ &F@ ! ʻ CK?=ʻ #B ʻ 8#4ʻ ?;ʻ ?#D ;E ! 4ʻ #B =ʻ CK?=ʻ #B ʻ 88N# ?;4ʻ B ʻ B 88ʻ =@C;;ʻ #B ʻ K =ʻ ?!ʻ =ʻ BC= ; ʻ < ;" ʻ #?# ʻ NC?# ʻ #?ʻ D ʻ + @ ;= ʻ = ʻ F @# 4ʻ D>ʻ #B ʻ ! ʻ ?< ! ?= ; 9?;ʻ D>ʻ #B ʻ 0?; ʻ ?!ʻ / ; >ʻ ?C=@ 84ʻ =ʻ @ ! ʻ #B ʻ ! ʻ ?<< ! ?= ;ʻ *B ''ʻ ? ;L 8??"ʻ #B ʻ ! < 5 ʻ 8!Cʻ #B #ʻ #B ʻD; E ;ʻ ! =# =Aʻ #B ; #?4 ?;ʻ ?<K8 @ ʻ #B ; =4 !8 88ʻ =@C;;ʻ #B ʻK ;ʻ ?!ʻ ! !#>ʻ < ;" 4ʻ = ʻP 8!?7 < ##ʻ = ʻ8?! ʻ #B ʻ8 D ;#>ʻ ?!ʻ D; E =A4ʻ EB @Bʻ ! = ʻ ; ʻ 8!?ʻ B ; D>ʻ KK?>=# ʻ Tʻ #?ʻ D ʻ KK8 ʻC!ʻ CK; 7 = ʻ #ʻ ʻB ; D>ʻ + @8 ; 9ʻ #B #ʻ !ʻ =>ʻ % @" < =ʻ ?;ʻ ?88 @#?;4ʻ ?;ʻ ?#B ;ʻ K ;!?=4ʻ *B ''ʻ F @#ʻ =>ʻ #B =Aʻ ? ;4ʻ = ʻ D? ʻ B ʻ F@ ! ʻ !?;ʻ #B ʻ + @B ;A ʻ#B ; ?!4ʻ ?;ʻ !?;ʻ #B ʻ + @B ;A ʻ?!ʻ =>ʻ +%ʻ KCD8 @"ʻ +C ʻ EB #!? ;4ʻ #ʻ !8 88ʻ D ʻ ; KC# ʻ ʻ ?KK; ! ?=4ʻ = ʻ KC= B ʻ @@?; =A8>ʻ D>ʻ #B ʻ ! ʻ ?<< ! ?= ; 4 EB?ʻ ; ʻB ; D>ʻ <K?E ; ʻ#?ʻ K;?L @ ʻ A =##ʻ #B ʻK ;!?= ʻ AC 8#>ʻ = 4ʻ B ʻ #>ʻ E #Bʻ @ ʻ = ʻ @?=! =#ʻ !?; ʻ +?ʻ C#B?; W = ʻ <K?E ;ʻ #B ʻ 0?; ʻ ?!ʻ B ʻ !# ʻ /; >ʻ ?C=@ 8ʻ #?ʻ K; !@; D ʻ !C@Bʻ ?#B ;ʻ < #B? ʻ = ʻ ?;L

; ʻ ʻ #B >ʻ !8 88ʻ C A 7ʻ= @ ! ;>ʻ !?;ʻ < " =Aʻ #B ʻ @#ʻ !! @#C 88

%ʻ !?;ʻ ?=# =C =Aʻ #B ʻ # ?= 8ʻ &F@ ! 5ʻ # 88ʻ ;@Bʻ GVʻ E #Bʻ #B; ʻ ?= #! ʻ ! ;#B ;ʻ "

% &ʻ & # # ʻ ?!ʻ / ;8 < =#ʻ # " =Aʻ #?ʻ #B ;ʻ !C;9ʻ Zʻ #B ;ʻ ?= ; # ?=ʻ #B ʻ K; =#ʻ (# # ʻ ?!ʻ #B ʻ 1 =AL ?<4ʻ = ʻKCD8 @"ʻ F A =@ ʻ#B ; ?!4ʻ B ʻ#B?CAB#ʻ ! ##ʻ #?ʻ ?!! ;4ʻ = ʻ ?ʻ B ; D>ʻ BC<D8>ʻ = ʻ B ;# 8>ʻ ?!! ;ʻ #?ʻ B #>4ʻ #B #ʻ #B ʻ # ?= 8ʻ &F@ ! ʻ ?!ʻ %E?ʻ K == ʻ CK?=ʻ #B ʻ K =#ʻ ?!ʻ 8 ʻ = ʻD ;44ʻ = ʻ ?#B ;ʻ 8 NC?; ʻ <K?! ʻ !?;ʻ =ʻ > ;4ʻ D A == =A9ʻ #B ʻ ! ; #ʻ ?!ʻ (K# <D ;ʻ= F#4ʻ D>ʻ =ʻ @# ʻ?!ʻ #B ʻ (! ?=ʻ ?!ʻ / ;8 < =#4ʻ D ʻ @?=# =?E ʻ !;?<ʻ = ʻ !# ;ʻ #B ʻ ʻ FK ; =Aʻ ?!ʻ #B ʻ ! ʻ> ;4ʻ C=# 88ʻ #B ʻ ! ; #ʻ ?!ʻ ;@Bʻ = ʻ #B?C! = ʻ (Fʻ BC= ; ʻ = ʻ =>=#>ʻ (=ʻ = ʻ @8 " ʻ #B ʻ !?C< ʻ ?!ʻ %E?ʻ BC= ; ʻ = ʻ (F# =9ʻ #B?C! = ʻ /?C= 4ʻ D =Aʻ #B; ʻ ?= #B ʻ ! ʻCK?=ⅈʻ #B ʻ 0 = ʻ 9 =#ʻ ?!ʻ #B ʻ 1 =A ?<ʻ K > D8 ʻ #ʻ #B ʻ # ;<ʻ ?!ʻ 0 <D ʻ = ʻ #B?C! = ʻ (Fʻ BC= ; ʻ = ʻ =>=#>ʻ (Fʻ > ; 5 = ʻ #B #ʻ ? ;ʻ = ʻ D? ʻ #B ʻ (Fʻ ?= #B ʻ ! ʻ 8; >ʻ A; =# ʻD>ʻ =?#B ;9 @#ʻ ?!ʻ #B ʻ (! ?=ʻ ?!ʻ / ;8 < =#Zʻ = ʻ @@?; =A8>ʻ ʻ #>ʻ E #Bʻ @ ʻ = ʻ @?=! =#ʻ ?!ʻ #B ʻ ! ʻ & 8 # ʻ (# #C# ʻ = ʻ ; = ʻ #B #ʻ #B ʻ ! ʻ L # ?= 8ʻ &F@ ! ʻ B ; D>ʻ @?=# =?E ʻ ʻ ! ʻ 4ʻ = ʻ #B ʻ ! ʻ #B; ʻ ?= #B ʻ ! ʻ K > D8 ʻ #ʻ 0 <D 4ʻ = ʻ #B?C! = ʻ (Fʻ BC= ; ʻ=>=#>ʻ (F4 A; =# ʻD>ʻ #B ʻ K; ! =# @#4ʻ !8 88ʻ D ʻ; ! ʻCK8 !# ʻ = ʻ =A #B ; ʻ !;?<ʻ #B ʻK ;!?= ʻ8> D8 ʻ =ʻ K >< =#4ʻ =ʻ < == ;ʻ = ʻ !?;ʻ #B ʻ = ʻ KK?>=# ʻD>ʻ #B ʻ ! ʻ#E?ʻ ; K @# ʻ @# ʻ D? ʻ < =# ?=

%ʻ !?;ʻ / ; ; # ?=ʻ ?!ʻ ?E 4ʻ 0 = ʻ = ʻ / #C; A 4ʻ 8> =Aʻ @ =#ʻ #?ʻ = ʻB 88

' ʻ (& *) ʻ 0 +ʻ ?= ; =Aʻ #B #ʻ 9 Uʻ < =>ʻ 0 = 4ʻ ?E 4ʻ = ʻ / #C; A ʻ 8> =Aʻ ?=ʻ #B ʻ (ʻ ? !# 4ʻ B ʻD =ʻ ;C = ʻ = ʻ ? ; K; ʻ =ʻ < =>ʻ K8 @ ⅈ ?!ʻ #B ʻ 1 =A ?<ʻ D>ʻ = 9ʻ ; =ʻ !;?<ʻ @ =# = ʻB 88 4ʻ #B ʻEB @Bʻ B ʻD ʻ< =L 8>ʻ ?@@ ! ?= ʻ D>ʻ #B ʻ KC88 =Aʻ CKʻ D>ʻ ⅈ#B ʻ ??#ʻ ?!ʻ =#JC= K ;ʻ = ʻD;??<ʻDC!8 ʻEB @Bʻ ʻ8??! = ʻ D; "ʻ #B ʻ C;! @ ʻ = ʻ @;??!! ʻ ?!ʻ #B ʻ ! ʻ B 88 5ʻ = ʻ K ;# @C8 ;8>ʻ ?= ; =Aʻ #B #ʻ #B ʻ ;;?=>ʻ ?!ʻ ?ED =4ʻ = ʻ B?C! ʻ = ʻ> ; ʻ #B ; ?!4ʻ 8> =Aʻ E #BL =ʻ #B ʻ (B ;; !! ?<ʻ ?!ʻ &8A =4ʻ ʻ NC # ʻ ;C = ʻ = ʻ ? ; K; ʻE #Bʻ = 4ʻ #B ʻ EB @Bʻ E ʻ ?@@ ! ?= ʻD>ʻ #B ʻ !?; ʻ D ʻ K; @# @ ʻ ?!ʻ KC88 =Aʻ #B ʻ =#ʻ = ʻ JC= K ;ʻ %B ; !?; ʻ ʻ * #>ʻ E #Bʻ @ ʻ = ʻ @?=! =#ʻ ?!ʻ #B ʻ &!# # ʻ ?!ʻ / ;8 < =#4ʻ !?;ʻ K; =#L =Aʻ ?!ʻ #B ʻ 8 " ʻ K; C @ ʻ =ʻ # < ʻ @?< =A4ʻ +? ʻ !#; @#8>ʻ / ;?B D #ʻ = ʻ + @B ;A ʻ #B ʻ / C88 =Aʻ ?!ʻ =#4ʻ ;?? <ʻ ?;ʻ JC= K ;ʻ ?!!ʻ = ʻ B 88 ʻ !?;ʻ B ; !# ;4ʻ #B ;ʻ D>ʻ #B ʻ K;?K; # ;ʻ #B <! 8 4ʻ ?;ʻ =>ʻ ?#B ;9ʻ EB #!?< ;4ʻ #B ʻ ! < ʻ D =Aʻ #B ʻ= #C; 8ʻ ! =@ ʻ ?!

#B ' @ =# ?C=#; ' #?' #B ' ! 88 5 ;# !>L
=A' C@B' ' !8 88 @?=#; =' #B ' @#4 #B >' !8 88
=?# ?=8>' D ' 8> D8 ' #?' #B ' <= A 4 #B # !8 88 #B ;9
' #B;?CAB' =!C 4 DC# !8 8878 " E ! ' D ' 8> D8 ' =' #B '
!?C<' ?!' # =' K?C= ' ?!' K = 8#>4 #B ' ?= ' B 8! '
#B ; ?!' #?' D 8?=A' #?' #B ' *=!?;;B ;4 = ' #B ' ?#B ;'
B 8! ' #?' #B ' JC A ' E #B =' EB?! ' JC; @# ?=' #B '
! ' ?=#; =# ?=' !8 88 D ' @?<< ##

Ó %' !?;' %C;= =A' #B ' % @"' ?!' #B ' /?8 '
G.' =#?' ' ?88 @# ?=

55' ' ' (& *) ' 0 +' ?= ; =A' #B #
8D # #B ' /?8 ' A; =# ' D>' @# ?!' / ;8 < =# ='
#B ' > ;' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>'
#B; ' E ' (# 8 >' #B ' 0?; ' ?!' %B ! C;>' = '&FL
@B NC ;' #?' #B ' * ?; ' ?! 4 (W J?B=' ?@B; =' ?!'
@B 8#; 4 = ' ?#B ; ' < =# ?= ' =' #B ' % @"' #B ; L
?!4 !?;' #B ' !C<' ?!' !?C;#>' !?C;' %B?C = ' = ' ?= '
BC= ; ' K?C= ' (# ;8 =A' ?!' % @"' C#>4 ' #B ' % @"'
=' # 8! ' D ; ' Z # #B ' 8 > =A' ?!' <?= >' D>' / ?8 '
D =A' = E4 = ' #B ' ?C=#; >' = ' ?#B ; ' @?=@ ;= '
=?# ?D! ; =A' #B ' C8 ' = ' ?; = =@ ' @?=# = '
=' #B ' @# ?!' / ;8 < =# #B ; = =#' C# #B;?CAB4
#B ;' ! 8 =A4 =@C;; =A' #B ' 3C ;CK8 ' KK?>=# '
D>' #B ' ! ' @# D>' E >' ?!' K = 8#>5 #B ' !?; '
% @" < =' E ; ' =?# D8 ' #?' K >' #B ' W!?; ' C#>'
C=8 ! ' #B >' B ' D =' 88?E ' #?' &F @# #B ' !?; '
3C ;CK8 4 EB @B4 B ' ! D8>' # = ' #?' #B ' A; #
?KK; ! ?=' = ' !#C;D =@ ' ?!' #B ' EB?8 ' 1 =A ?<'
%B ; !?; ' = ' =' !?' =AC8 ;' ' ! 4 EB @B' B ' L
#>' ' ; !?8 ' !8 88 = ;' D 4 ; E=' =#?' &F <K8 '
' #>' E #B' #B ' @ 'P = ' @?=# =# ?!' #B '
&!8 # ' ?!' / ;8 < =#4 B #BT8 D ; # ' = ' B ; D>'
8 D ; # ' #B ' !?; ' % @" < =4 = ' 88 ?#B ; ' @?=L
@ ;= ' #B ; =4 !;?; ' #B ' ! ' % @"' = ' % @"' C#>'
+ @B ;A =A' = ' F?= ; =A' #B <' ?!' #B ' ! < =4
DC# E #B' #B ' ?= # ?=' = ' K;? ! ?=' 0 " ' B '
#>' E #B' @ ' !?; ' B ; D>' (# #C# ' = '
K;? ' #B # #B ' !?; ' % @" < =' !8 88 < " ' C!#
?<K# = ' @"?= =A' ?!' 88 #B ;' *=#;?< ! ?= '
E #B'#B ' ! ' /?8 ' <?= >4 @8 " ' ' !' #B >' B '
?=8>' D =' ?88 @#?; 4 = ' =!# ' ?!' #B ' ! ' % @"'
B ' A?# ' ?<< ! ?=' 88 == ;8>7!?;' #B # !! @#4
E #B' = ' C= ;' 8E > ' #B ' K ;# @C8 ;' !?88?E =A'
?= # ?= ' $; # %B # #B ' ! ' % @" < =' D ' 8> D8 '
!?;' 88 #B ' (CD9 ?88 @#?; ' = ' = A ; ' <K8?> '
D>' #B < ' (@?= 8>' %B # 88 #B ;' D??" ' D 'P< '
K # =#4 = ' F < = 4 = '#B # #B '% @" < =' = '
#B ;' (CD9 ?88 @#?; TD ' &F < = ' CK?=' ? #B4 ' #?'
#B ' ; #>' #B ;?!4 = ' EB #B ;' #B ; ' D ' =>' #B =A'
?< ## ' %B ; 8>' %B # =' @ ! ' # D ' !?C= ' #B ; ' E '
=>' #B =A' ; @ ' !;?<' #B ' ?C=#; >' =?# A ='
C F =' #B ' D??" 4 #B # #B ' % @" < =' ?;' #B ;' (CD9
@?88 @#?; ' D ' 8> D8 ' =' #E =#>' fB 88 =A' !?;' @B' fB 8L
8 =A' !?' ?< ## ' $?C;#B8>4%B # #B 'P ?88 ' ?!' #B '
K?8 D8 ' K ;!?= ' # " =' CK' D>' #B ' ! ; 8' JC!# @ '
?!' / @ 4 A !#; ! ' ?!' C;AB ' Q ?#B ; ' D ' K;?L
C@ ' #?' D ' ?<K ; ' E #B' #B ' ??" ' $!#B8>

%B # ' ! E' ?<K#;?88 ; ' D ' KK?>=# ' #?' F < = '
??" ' = ' @@?C=# 4 = ' C!# #B ' EB?8 ' < ## ;'
= ' #B # #B ' 0 A ' D ' = # ' = ' =@?C; A '
#?' ?<K#;?8 1#B ' ' @@?<K# 4 = ' #B # #B >' D '
K # =# # ' KCD8 @"' ?!! @ ' !?;' ' ; !?= D8 ' # < ' #?'
88 #B ' 0 A ' !?;' #B # = ' (F#B8>' %B # #B '
?; ;' ?!' / >< =# ' ?!' #B ' ?C=#; >' =' #B ' ! ; #
K8 @ 4 = ' #B =' ?!' #B ' !?;@ ' ' K; @; D ' D>' @#
?!' / ;8 < =# D ' C8>' = ' !#; @#8>' ?D! ; ' D>' #B '
?<< ! ?=' !# ;< =# ?= ' (=#B8>' %B # CKL
?=' @@?<K# ' *=!#;C@# ' = ' 0 NC #4 =' C '
< == ;4 # =# ?=' D ' 88?E ' D>' #B ' ?<< ! ?='
#?' #B?! ' #?' EB?<' #B ' ! ' @@?<K# ' ; ' C ' ='
#B ' # ;< ' ?!' #B ' @# ?!' / ;8 < =# ' & AB#8>' %B #
EB ; ' =>' (CD9# @"' B #B' D =' ! # D>' #B ' ! '
% @" < =4 #B ' (CD9# @" < =' B ' =' #B ;' ?K# ?=4
#B ;' #?' K >' #B ' (D9# @"' C#>4 ?;' < " ' ?<K#
; @"?= =A' = ' K >< =# ?!' #B ;' *=#;?< ! ?=' '
(CD9 ?88 @#?; 4 =#B8>' %B # =?' (88 ; ' D ' 89'
[8?E 4 ?;' A =' #?' #B ' ! ' % @" < =' ?;' #B ;' (CDL
@" < =' !?;' #B ;' @?88 @# =A' = ' #?' #B ' !! @#4
#B ' ' ?<K# = ' @"?= =A' < >' K8;?@ ' '
#>' E #B' @ ' = ' @?=# =# !? 4 B ; D>'
?< = # ' = ' KK?>=# ' #B ' + C" ' ?!' 3C = D ;;>4
#B ' & ;8 ' ?!' 0 =8 #BA?E' = ' 0 =4 (P J?B=' 0 CL
;' ?!' ##?C=' #B ' 0 ; ' ?!' 0 =A!#?C=4 #B '
0 ; ' ?!7 %?;E?? 8 4 (P [2 88 <' < 8#?=' (W
;@B D 8 ' C; 4 = ' 2 88 <' =W ' ?<< !9'
?= ; ' #B;A ' ?!' ;>' (# # 4 @B?! =' D>' #B ' / ;8 L
< =# !?;' #B # !! @#4 EB ;?!' =>' ! ' #?' D ' ' NC?L
;C<4 #?' [< # # & =DC;AB' #B ' ! ;!# 8 E!C88 >'
!# ;' #B ' ; ! =A' ?!' #B ' (! ?=' ?!' / ;8 < =#4 = '
#B ; !# ;' # <@B' > ' ' #B ' ! ' ?<< ! ?='
fB 88 KK?>=#' 0 " ' ?' ' ?!' #B ' ?<< ! ?= ; ' ?!'
' # ' %B ! C;>' ' 88?E ' #?' D ' K; ! =#4
E #B' ; AB# #?' ?# 4 DC# ' ' B]K; ! Y@ ' W ," =?#
D ' = @ ! ;>' #?' < " ' CK' #B ' !?; ' NC?;C<' E #B'
/?E ;' #?' #B ' ! ' ?<< ! ?= ; ' #?' # " ' =' #B '
@@?<K# ' ?!' #B ' 8 ' % @" < =' #B ;' *=#;?< f ?=4 '
' !' #B >' B ' D =' ?88 @#?; 4 = ' #?' < " ' #B <4
@@?<K#W!?;' #B ;' ?88 @# ?=' =' < == ;' = 'C= ;'
#B ' ?= # ?= ' D? ' ! ## ?C=5 = ' #?' # ;< = '
88 !! ; =@ ' D #E =' #B ' ! ' 9% @" < =' = ' #B ' T
?C=#; >4 = ' #B ' ?!! @ ; ' = ' ?C8 ; ' = =# #B '
K; < ! Z ' 8!?' E #B' K?E ;' #?' #B ' ! ' ?<9'
< 8" ?= ; ' #?' ?' ;>' #B =A' = @ ! ;>4 !?;' =D; =AL
=A' ?!' EB # ' > # ; ## =A' C=K > ' ?!' #B ' ! ' / ?8 '
D>' #B ' ?C=#; >4 =! ' !?;' < " =A' #B ' ! < ' !! @L
#C 8'5 = ' 8!?' #?' @ 4 = ' ! = 88>' # ;< = ' 88
NC !# ? ' #B # < >' ; ! ' @?=@ ;= =A' #B ' K; ! ; =@ '
?!' #B ' !! @ ; ' ?!' #B ' ;<>' =# ; !# 4 ?;' #B ;' D L
=A' D;?CAB# =' NC 8 #>' #?' A # #B ;' fB ; ' ?!' K >L
< =# ?C# ?!' #B ' (CD @# ?!' #B ' ! ' K?8 4 ' 8 " 9'
E ! ' E #B' K?E ;' #?' #B <4 #?' 88?E' ?;' =?# #?' 88?E'
FK =! ' !?;' =D; =A =A# #B ' ! ' KD8 ' #?' #B ' ! '
% @" < =' = ' #B ;' (CD9# @" < =' 9=?E' #C;= ' #?'
?88 @#?; ' = ' (CD9@?88 @#?; 4 ' #B >' fB 88 ! '
@ C! 5 = ' A = ; 88>' #?' ?' 88 ?#B ;' #B =A ' = =# 4
#B ' K; < ! 4 #B # #B >' < >' D; =A' #B ' !?; '
% @" < =' #B ;' *=#;?< ! ?=' = ' ?88 @# ?=' #?'

Ó ('

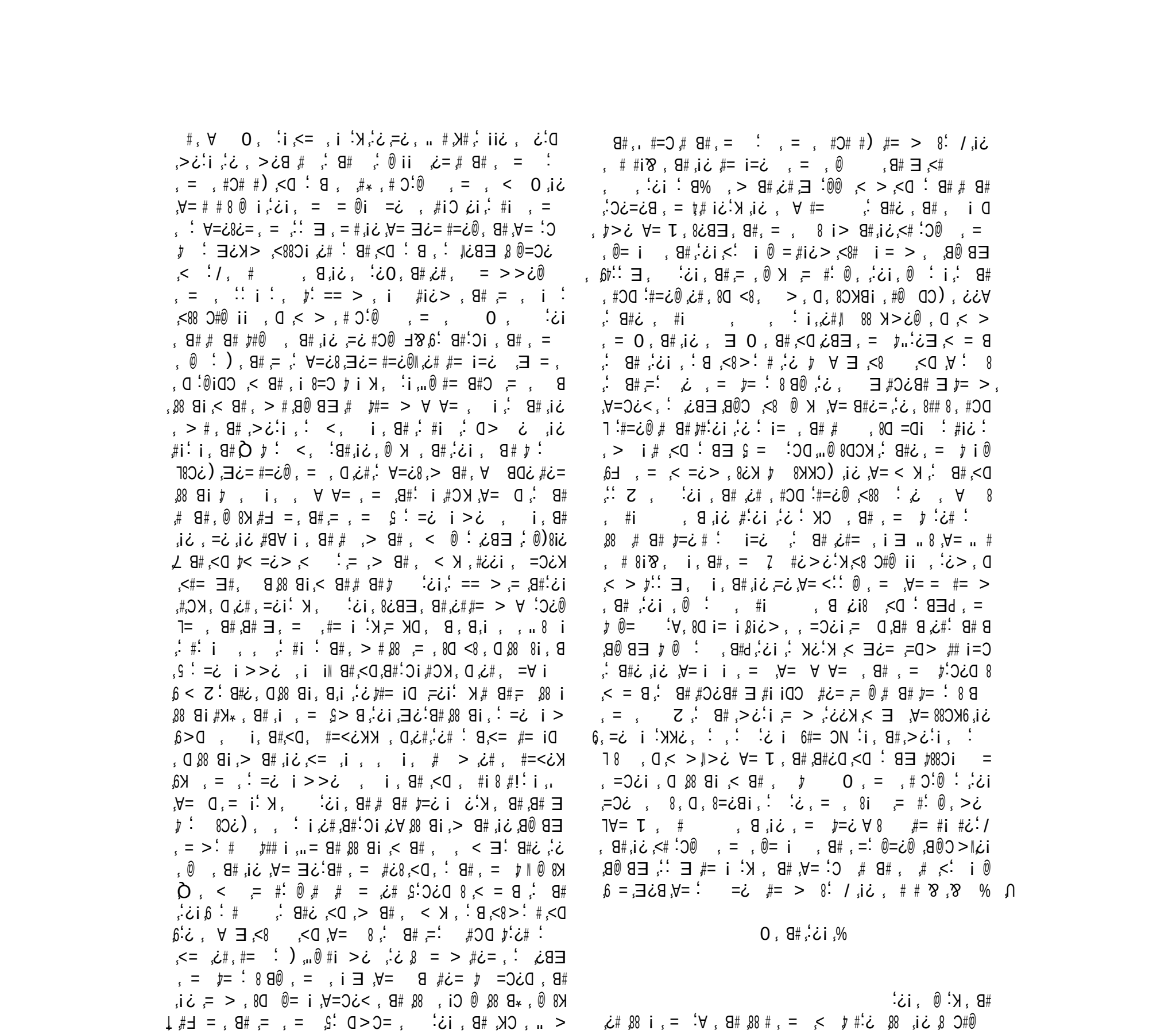
U

D?C;B?? = =A'#B'#B'/##?=';'EB8=A'
#?'DC>'#B'i'Ei#'= = D=?='K@'?i'
A;?C='#B'Ci#'= B@8?i'=?;';#
i?';i< =A'#B'i?;i'DCi'C#@?C8'=?#
#B;?CAB'#B'<C8#'#C'?i#B'i'; #?;'=
<='E#B'B<'= B'i?;' ';B'KK= <?=A'JI' =>'
@';#='K;#>'#?'D;A='E#B'('B#'#'#B';'E'
B;##A'='88'<@?<'=A#' 'B'i'/##?='
D;'2B@B'D=A'CK?='#B'#E=#>'AB#'>?i'
?=' ‖%B?<' "<='E;#';#?'#B'(A=#'#?'
EB?<'#B'i'2B8<'&#?i'K>'B';=#EB?<'
E#B'B' ?=i#'#C=#'EB?i'=<' ';EB?;'i?';
<=#B>';<##'#B'i<'#?'#B' ?<<##'i?';
K; #ii;'#?'K;K;'=';#?;'#B'i/';8L
<=#EB@B'#B'i ?<<##';<##'#?'(CDL
@?<<##' =';#B'i' ?<<##'(@C;#?'
?i'#B'1=A?<'B =A'CK?='#B'#B;##>'>?i'
[#B'i?;i'*?=#B?i' >'B';=';@?=i ;'
#B'i?; /##?=';=';#B'';#?;'(CDL
@?<<##'i##'#B'A;?C='%B>' '
;K?;#'#B'#='#B ;?K=?='#B' i;'?i'#B'D'
?CAB#'#?'D'A; =# 'D>'#B'/ ;8< =# ='EB@B'
K?;# D? 'E;##='D =A'CK?='#B' >'= #6
?i'#B';'K;i=#'E#B'#B' i##?='D? '<=#?=L
'B;'= '@?=i ;'D>'# B AB'
<<i?;'= '#B'i&i# #'?i'/ ;8< =#
?<<i?=';'= '#B'i'&i# #'?i'/ ;8< =#
%B>'# KK;? '= 'B;D>'KK;? 'i'#B'i?;'
/##?='Cii@ =#8>';>i>' = 'A; =# '= '
B;D>'A; =#'#B' i;'?i'#B'i '/##?='= '
?; = '= 'B;D>' ; = '#B'K;i=# @#'#?'
B'F#= '#B;?='+@8;=A'#B'#B'i'(‖J<
```



```
'  '(  &  *)'0  +'  ?=  ;='A'#B'#
#B'B;D?C'?i'#B'%?C='?i'  >;'  ';C=  '  ='
8>'  ='  ;CDD i8'  ='#B'#B;D>'B'#;'  '?i'#B'
i?;  '%?C='  'NC#'  @>'  ='#B'*=B D#='
#B';'?'<K?  ;  B'#B'#B>'  ;'=?#  D8'#?'
i?88?E='A'B2C8'D'#?'B'C='NC i#?=  D8'=  '
?=  'A;?C='i;?<'#B'i?;  'K;?='<==';
(#C;'#'B'KC;@B i='A'#B'i?;  'Ei#'QD='L
```

' ' '
```



?*B

! ((?C8 ;= C=8 ! #B < =D # " =?=D> A; L < =# ?E= D>B <= K; ! =@ ?!#B JC A ?!#B ?C= 4 = ! =>?!8@ ;= 8 8@?=#; =#B 4?; ;= K; ! ?;@?<K 8@ =>< =@?=#; ;#?#B ;C8 B ; D> !# D8 !B 4 #B # # D ; @"?= ?KK; ?== #B %;T= A; ! ?;KC= B D>#B ! = ?!= ?= #B / >= ! ; ;D> *<K; !?=9 < =#4?;D; " =A = B ; =A #B 0?; ?!= ?C=@ 8 !B 8@ #B ="! ## 0 = # ! ; ;B ; D> (# #C# = ; = #B # 8@ ?!! @ ; F @# =A 0? A =A ? '= = 8 A; # 4 !?;#B = ! 8 #B ;2 ?;B 8 ; =T !B 8@ 8?! = #>= #B ;= ?<< ! ?=5 = #B # 8@ (?C8 ; F @# =A 0? A =A4 ? 8 = = 8 A; # 49!?;#B ;E = @B 8 ; = !B 88 D 8> D8 !?;#B K ;# <9 < A #?D K > D>#B ;?<< = =A !! @ ; 4 # #B (AB# = KK?>=#< =# ?!=> A #; # E #B = C;AB4?;?#B ;JC A #?8 = E ; 5 ;L # !> =A #! !! @ ;! 8 =A B ; =4 #B # B ! 8@ 0D 8> D8 = #B; ?= #B K >4 = ! ; ;KC= B99 #B 0?; ?!= ?C=@ 8 !B 8@ KK?>=#5 2 B @B ! = ; 8!? #?D KK8 !?;; K ; # ?= ?!#B K ;# =#B ! ;!# K8 @ 4 = #B CK ;K8C #B ?C=@ 8 !B 8@ #B ="! #B

%!?; # ?= 8*<K?! # ?= CK?= $K;9 ; A= ?<< ? # <K?;# 7 0 ; -F+) * & # # ?!= / ;8 < =# @?= ; =A #B A; # ?=@ ! ?= A; =# D>B #> =#B K; ! =# (! ?= ?!= / ;8 < =# = ! ?C; ?!#B = #C; 8 K;? C@# ?!#B 1 =A ?<4D>#B &=@?C; A < =# A = !?;#B &FK?;# =A ?!= ?;= 4 = #B < =>K; 8 A 88?E !?;#B *<K;? < =# ?!%; = =C! @#?; 47 = #B # # ; !?= D8 #B ; !B?C8 D !C@B # ?= 8 C#> = C!8?< 8 CK?= ! D;; A= <K?;# ?<<? # 4 = ; NC # 8 !?; B # A; @ ?C !! ?C; +? E #B 88 BC<D8 C#> = #B ="!C88= ! !! ;#? B L #>#B # ?= 8 C# CK?=#B !!?;; A= ?<L <? # !# ;< =# ?= = #B # D> = ##?C; EB #B >E ; !?;< ;8>8> D8 #?D> @# ?!/ ;L 8 < =#K;?@ =A #B # B ; ?!4 D>#B !?88?EL =A % D8 *<K; < ' K?= 88 E = <K?;# !;?<$; =@ ?!= E C#>& AB# =K?C= EB @B E #B #B #B; ##>K?C= !@?# !?;< ;8> <K?! D>#B / ; >?C=@ 8 CK?=#B @@?C=#?!#B (C<K#C ;> @# < " = 88 K ;%C= !?C;# AB# K?C= *# <(K = B E = !;?<(K =4#B *<K?! # ?= !?;L < ;8> <K?! D>#B ?C=@ 8 B ; D>; # !> EB @B K ;%C=#B; ##>K?C= *# <?= ; = > #B !?;< ; C#>?!%E =#>K?C= (# ;8 =A D =A ?; = ; 8>; C@ D>#B 0?; ?!%B ! C;> = !! ;< ; #?#E 8 K?C= !# ;8 =A5 #B ; ?!= E C#> K ;% = D> = ##?C;#B 0 #E 8 K?C= (=# #E?K?C= 9!@?# *# <CKL ?= C<<D ;? ;= D? #B ?8 C#>#B ; B ; D> ?!= E C#> K ;D ;; 86 ! FK?C= *# <?=%?D @@?4 =8 !!4 =?# !;?<#B K8 =# # ?=

?!= E C#>K ;K?C= #E?!8 88 =A9*# <?=%?L D @@? = ?88 =?# !;?<#B /8 =# # ?= ?!= E C#>K ;K?C= !?C; B 88 =A *# <?= 88$; =@B 2 = <K?;# !;?<?88 = 4 ?; =>EB ; 8! =?# ?!#B A;?E#B ?!#B K8 @ !;?<EB =@ # FK?;# 4 D> = ##?C;#B D? E; ## = C#>4 #B ; ?!= E C#>K ;%C=#B; ##>K?C= 0*# <?= 88 (K = B9 2 = !;?<=>K8 @ F@ K# (K = ?!= E C#>K ;%C=!?C;#> AB# K?C= *# <?= ! = = C;; = !;?<=>K8 @ =K# ?!T #B A;?E#B !;?<EB =@ #B > ; FK?;# K ; BC= ; E AB# ?!= E C#> #E?K?C= AB# !8 88 =A *# <?=! A <K?;# !# ;#B ! < < =L = ; K ; BC= ; E AB# ?!= E C#>?= K?C= AB# !8 88 =A *# <?= (CA ;= 8? !! <K?;# ?!= E C#>K ;BC= ; E AB# #B; K?C= *# <D= (? K <K?;# ?!= E C#>K ;D ;; 8@ #E?K?C= *# <?= 889 ?;# ?!E;?CAB# ! 8" 4 8"T K8C!8 4 !#?@" =A ?!= E C#>K ;K?C= E AB# ?= 9K?C= # = !8 88 =A *# <?= 88 !?;# ?!(8" E;?CAB# ?!A?8 = 8 ;K ;K?C= E AB#4?!= E C#>#B; K?C= *# <?= 88 ! 8 ; = A?8 !; =A 4 ! 8 ; = A?8 0 @ 4) '?C= = &<L D;? ; <K?;# K ;K?C= E AB# ?!= E C#> #B; 4K?C= *# <?= 88 !!?;; A= 0 @ = K?>=# <K?;# 9 ?!= E C#> # = K ; =# 9 8C *# <?= 88 !!?;; A= E??88 = 8? #B <K?;# ?!= E C#>K ;88 #E 8 !8 88 =A *# <?= 88 !!?;; A= (;A = E?;!# !8C!! <K?;# ?!= E C#>K ;88 (F !8 88 =A *# <?= 88 !!? ; A= $8 == 88 4 $ =A;C< ?!= E C#>K ;88 !?C; B 88 =A *# <4 ?= 88 0 = = 8? #B <K?;# !;?<!!?;; A= ?C=L #; > ?!= E9 C#>K ;EB?8 K # #B; ##> F 88 #E 8 K?C= *# <?= #B B 8! K @ ?!!!?;; A= <K?;# 0 = = 8? #B ?!= E C#>(F K?C= *# <?= 88 (8 ! 0 == =?!= E C#>K ;K @ D =A ! 88 = K?C= *# <?= '#B; <K?;# ?!= E C#>! K ;=#4 8C 2 B @B +C# = C!8?< D? K @ !> C;a? 9 ; A= 0?; E #B @ = ?=! =# ?!#B &!8 # 9 ?!/ ;8 < =# (# #C# Q ; =#?D K > D>8 ;@B =# = ?#B ;*<K?;# ; ?!#B ! !!?;L ; A= ?<<? # 4 =#B ! < < == ; #B ?#B ; C# #?EB @B #B >E ; !?;< ;8>8> D8 = ?; = 88 !! ;< ; ?88 @#?; (C; >?; = ?#B ; 49#?=A #B ;#B ! < 4 = #B # !# ;#B ! < < == ;#B >?B # ?#B ;C# 4 CK?=P!!?;; A= <K?;# ?<<? # = #B # !;?<= !# ;#B # ;<?!;# < ! = #B?C9 ! = (FBC= ; = =>=#>(F> ; = B ; L D> !@B ;A #B ! ?88 @#?; !! ;< ; (C; >?; = ?#B ;=D; =A ; ?!B 9[C!8?< #?#; =!9 @#4 D # 4?;88?E4?!=> ! 8" # ?=?!#B L # ?= 8 C#> D? K @ ! C= ;#B K =?! K; # ? ;?!#B ;?!! @ 4 Q 8?! =A #B D = ! #?! #B ;7% @"

&=@?C; A < =# ?!' #B ' (" == ; ' ?!' #B ' 1 =A ?<49' #?E ; ' #B ' <K;? < =# ?!' #B '= # ' ?<<? 9 ' # ' ?!' E 8 ' f" = ' = ' 0 <D' f" = 4 = ' #B ' ;# ?!' #B # ; !# + ?' B ; D>' + @B ;A ' 88 = ' ;>' K ;9 !?=' EB #!?< ;4 = # ' ?;' #; =A ;4 #?' FK?;# ?C# ?!' #B ' 1 =A ?< ' =>' E 8 ' !" = 4 C@B' ' E 8 ' B> 4 + ' = ' 4 ? ' = ' ? ' DC@"4 = '" 4 E #B' #B ' B ;9 CK?=' #B <4 C=# 86' #B >' D ' < ' =' E?;"4 ?;' ; ! '8 #B ;' #K' #B ' A?? ' ?!' #B ' 1 =AL ?<' ' 8!?' B ' #>' E #B' @ ' = ' ?=L ! =# !?;! ' + @B ;A ' 88 = ' #P ;>' K ;!?=4 = # ' ?;' #; =A ;4 #?' <K?;# =>' !?;; A=' < ' A8? ' ?!' EB #!?< ;' !?;#' ;# !> =A !C@B' ' fB 88 ?' =' #B ' @?=#; ;4 #B ;' D>' FK?;# ?;' <K?;# ' ! ' 4 #B # #B >' fB 88 =?# ?=8>9!?;! C8# #B ' !?; ' A?? ' FK?;# ' ?;' <K?;# 4 ?;' #B ' C!# 8C ' #B ; ?!4 #B ' ?= ' B 8! ' #?' B ' #>4 = ' #B ' ?#B ;' ' ' ' #B ' =!?;< ;4 EB?' fB '' K;?! @C# ' #B 7 ! < ' D !?; ' ,-' # ' &F@B NC ;4 DC# 8!?' D ' !C;#B ;' 8> D8 ' #?' C@B' K C= ' ! = ' ?;' ?#B ;' KC= B< =# 4 ' 9#B ' 0?; ' ?!' B ' ' &F@B NC ;' fB 88 #B ="' ! ## #?' =L !8 @#4 + @8 ; =A' #B # #B ' @# fB 88 @?<< =@ ' = ' # " ' !! @# !# ;' #B ' ! ; # >' ?!' CAC!# = F# #?' @?< ' = ' *<K?E ; =A' #B ' ! ' f" == ; 4 Q =>' < ;@B =# 4 ?;' =>' ?#B ;' ?=@ ;= 4 E #B' @?=@C;! ' ?!' ' A #; #4 #?' ! ;@B' !?;4 = ' < " ' ! !C; ' ?!' #B ' !?; ' A?? ' B ; D>' K;?B D # ' #?' D ' FK?;# 7' ?;' <K?;# ' $?;' #B ' <?; ' !! @#C 8 &F @C# ?=' ?!' #B ' K; < ! 4 = ' !?;' #B 4D ## ;' *<K;? < =# ?!' #B ' ! ' f" = ' C;' (? ; A=' 0?; ' B ; D>' # 9' !> ' = ' KK;? ' #B ' @# < ' D>' ' ?= =L # ?=' ?!' C;;?E 4 = =# #B ' !C!! @ =@>' ?!' f" = ' = ' ?; = ' #B ' A !#; # ' ?!' '' C;AB ' #?' KC# #B ' ! ' @# #?' C ' &F @C# ?=' =' 88 K?>=#(4 = ' 8 !#8>' # ' B ; D>' + @8 ; ' #B # #B ' !?; ' @# ?!' / ;L 8 < =# !?;' ; @# =A' ?!' < =C! @#?; ' =>' 88?EL =@ ' #B # < >' D ' #B ; =' A =' !?;' #B ' < =C! @9' #?; =A' ?!' #B ' ! ' f" = ' fB 88 D ' DC# K; C @ ' #?' #B ' ; AB# ' Q K; 8 A ' ?!' #B ' ; !# Q *=@?;K?; # ?=' ?!' (" == ; ' =' 88 ?;' =>' ?!' #B ' C;AB ' ?!' #B ' 1 =A ?<4

%' = =# C;> =A' =' (@?# ' 0 = =

' ' (& *) ' 0 +' E #B' @ ' = ' ?=! =# ?!' #B ' &!# # ' ?!' / ;8 < =#4 !?;' #B ' D ## ;' *<K;? < =# ?!' #B ' * =C! @#C; ' ?!' 0 = =' E #BL =' #B ' 1 =A ?<4 = '; !#; = =A' #B ' <K?;# ?!' 88 *$?;; A=' 0 = =' +?#B' B ; D>' # !>' = ' KK;? ' #B ' (F# =#B' @# ?!' #B ' / ;8 < =# = ' #B?C! = ' (F' BC= ; ' & AB#>' (F' *=# #C8 ' @# !?;' DC;>L =A' =' (@?# ' 0 = =4 =' #B ' B 88 B ' = ' ;# @8 ' #B ; ?!5 ; = =A' #B ' ! < ' #?' D ' KC# #?' !!; @# F @C# ?=' =' 88 K?>=# ' 2 #B' #B ' # ?=' #B # =?= ' K; !C< ' #?' @ C! ' DC;>' =>' =' (@?# ' 0 = =4 =' 8C ' D? ' #E =#>' fB 88 =A' (@?# ' K ;' 88 C= ;' #B ' ! < ' K = 9 ! ## ?C=' =' #B ' !?; ' @# A =!# DC;> =A' =' !!?;; A=' 0 = =Z' = ' !?;' #B ' D ## ;' !@? ;>' ?!' #B ' !?;! '%; = A! ! ?=4 = ' F @C# ?=' ?!' #B ' !?; ' @#4 = ' #B ' # ?=' B ; D>' < ' #?' #' ' #>' E #B' @?=! =# !?; ' (# #C# ' Q ; = ' #B # #B ' = ; !# 8 ;' ?;' + @?=' ?!' #B ' / ;?@B' E #B' ?= ' = ABD?C;' ?;' #E?' D ' @ 88 ' D>' #B ' K ;!?= ' @?=@ ;= ' = ' K; ! =# #?' #B ' KC## =A' ?!' #B ' ' ?;K ' =' #B ' ?!! =4 #B # #B >' < >' ! ' #B ' ! < T ?= 4 = ' #B # #B ' !?; ' @# E #B' #B ' K; ! =#' # K=' ' ?D! ; 4 = ' (CD!@; D ' #B ' ;#!! @ #4 < =# ?= ' =' #B ' !?; ' @# = ' #B # EB # ;' 8 # ?=' ?;' ?#B ;' !; = ' ?!' #B ' !C=@# K; ! =#4 = ' B =A' #B ' B ;A ' ?!' #B ' DC;> =A4 B 88 #B ;' ! 88 =' ?D! ; ' =A' #B ' !?; ' @#4 E #B' #B ' # ?=4 ?;' ?#' @ 88 #B ' 8 ;' ?;' + @?=' E #B' !C ' = ABD?C; ' ' = >' D ' E #= ! 4 ?;' #?' ! = ' = ' A ' =' #B ' ;# ! @ #4 KK >=# ' D>' #B ' ! ' @#4 B ' ?;' #B >' fB 8!' D ' B?8 =' ' #; = A; ! ?C! 4 = ' 8> D8 ' =' #B ' K = ' 9#B ; ?!4 EB @B' ; ' BD' B ; D>' =# ; 8>' KK8> 4 = ' A =' #?' #B ' K??;' ?!' #B ' / ;?@BZ = ' =>' &8 ;' ?;' + @?=' ?!' #B ' / ;?@B' ' *<K?E ; ' #?' K ;!C ' !?;' #B ' ! < 4 !?;' #B ;' C! 4 =?;' B 88 =>' K ;!C# ' !?;' #B ' ! ' ! = ' D ' ?@ # !;?<' #B ' *=! ; ?C# JC A ' @?<K # =#4 =?;' =>' ! 88 ?!' K;?@ ' A =4 =?;' !B '' =>' + @; # #B ; !?; ' D ' (C K = 4 DC# CK?=' + @B ;A ' ?;' ?= A= # ?=' ' = ;8>' = ' #' ' !C;#B ;' B ; D>' (# #C# ' #B # #' !8 '' =?# D ' 8 !?< ' #?' =>' K ;!?=' #?' < " ' ?;' ! E' =>' !?;# ?!' ' 0 = =' @?=#; ;' #?' #B ' !?; ' @# = ' #B ' K; ! =# # ?B' C= ;' #B ' K =' ?!' !?C;#>' < ;" ' #?# ' NC?# 4 !?;' #B ' C! ' ?!' #B ' K??;' ' !

' ' (& *) ' 0 +' ?= ; =A' #B # 3 ' #B ; ' E ' =' @# ?!' / ;8 < =# < ' =' #B '> ;' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' #B; 4 !?;' #B ' JC!# @ ;>' =' #B ' AB8 = ' + @8 ; =A' #B # B ' #>' D>' ;#C ' ?!' B ' /; ;?A # ' ?> 84 < AB# A; =# ?=< < ! ?= ' ?!' JC!# @ ;>' !?;' #B ' ! ' D?C= 4 E #B' 88 K?E ;' = @ ! ;>' = ' C!C 8 FL @ K# =A' #B =@ ' !;K<' #B ' D?C= ' 8> =A' E #B =' 9#B ' B ; # D8 '; AB# ?!' JC!# @ ;>' A = ; 8 K ;# = =A' #?' #B ' & ;8 ' ?!' ;A 8 ' ?;' =>' ?#B ;9 K ;!?=' / ;? =A' = ;#B 8 ! ' #B # #B ' !?; ' KA;!?= ' EB?! ' D?C= ' E ; ' F@ K# ' fB?C8 ' !?;' #B ' K @ ' ?!' #E?' > ; ' D ' ?D8 A ' #?' A; =# ?=< < ! ?K ' #?' #B ' ! < ' K ;L !?= 4 EB?<' # fB?C8 ' K8 ! ' B ' #>' #?') ?<9' < ! ?= # !?;' #B ;' ! ' D?C= ' Q 0 = 4 EB @B

%' = =# #B 'JC # @ ;>' ?!' #B ' AB8 =

0 0

V' ' ' (& *) ' 0 +' #B ' 1 =A ' L #>' E #B' @ ' = ' ?=! =# ?!' #B ' & # # ' ?!' / ;8 < =# =' KC;!C =@ ' ?!' #B 9' < ' >' A?? ' @# ' < ' !?;' #B ' ! ## =A' CK4 = ' < =# = =A' ?!' =CL ! @#?; 4 = ' K ;# @C8 ;8>' ?!' #B ' @# = ' #B?CL ! = ' (F' BC= ; ' = ' (F#>' ?= ' *=# #C8 ' @# !?;' &; @# =A' ?!' =C! @#?; 5 = ' !?;' #B ' A; # ;

<3

#E? > ;' D =A' =?E' = ;' FK ; ' = ' # D =A'
= @ 8 :>'#B ' #B ' i?; ' ?<< i ?B' i# ;'#B ;'
FK ; # ?=' iB?C8 ' D ' ; = E ' %B ; i?; ' L
#>'E #B' @ ' =' @?=i =#' i?; ' ? 'B ; D>'
K;'?;'?A ' #B ' i?; 'K;'? ?=¢ #?' #B ' ii @#' = ' ='
#B '# ;'< ' i# ;' $ ' $ +';)'#B #'EB ='#B ' ?<@
< i ?=' ; 'A; =# 'D>'B ' #>¢ i?;'#B ='B = @ i@
i?' NC =#8>'@?<< ## ' ='#B ' AB8 = ¢ i?;'#B '
,+-'D?C= '=?'# D? ' F@ K# ¢ #B ' i?; 'K '
ID=' B =A' ; AB#'#?'#B ' i 'B ; # D8 'JC i# @ ; '
A = ; 84 8B 88' A; =# <K8 ' ?<< i ?=' i?;' #B ;'
; K @# 'D?C= ' # #B 7' i < ' # < ¢ = '#?' #B '
i < ' K ;'i?=' X # 8 i# #?' iD < =>'?i'#B <' ' ;'
E 88 =A'#?' K¢¢ D>' ;#C ' ?i'#B ' i 'JC i# @ ; '
?<< i ?= "#?'#B ' ii @# #B 'i ' ?<< i ?= ; ¢
@# =A' C= = <?C 8>¢ E #B =' =>'K ;'# 'B AB8>'K; C @ '#?' #B '
#B ' ; = >' @?<<?=8>' @ 88 ' C<¢ < ';?i' ?89'
8?i C ' ? 7B = ;'#B ' ?=iC<K#' ?i' i#;'?=A'E # ;'
< ';?i'< 8¢¢ EB @B' 'B ' = # 'K;'? C@#' ?i' #B '
1 =A ?<'Ł ' 8i?' #B # #B ' i ' C<' ' ; #B ;'
E #B' @ ' = '@?=i =# ?i' #B ' &i# # ' ?i' / ;8 L
< =¢¢ /';?B D # ' = ' + @B ;A ' #B ' < " =A' ?i'
C<¢ F@ K# 88 == ;8>'i?;'&FK?;'#5 ;'# i> =A'#B '
?=#; = ; ¢ #B #'#B >'88 88' 8?i ' = ' < ##'#B ;'
K; 8 A 'A; =# '#?'#B <' ' =C! @#?; ¢ = '
D ' ?#B ;'E > ' KC= B ' ' #B ' O?; ' ?i' /; >'
?C=@ 8 8B 88' #B =" 8 ##

#B ; =¢ =' < == ';'i?; 5 ?;' =' @ i ' # D '*=i#;'C@#9'
@?=i =#?i'#B ' &i# # ' ?i' / ;8 < =¢ i?;'; =A'
= ' K; i ; =A' #B ' A??' ?; ';#B # ?CAB#' #?' D '
" K#' =' #B ' K i =A' ?i' 2 ; # ' C= ';#B ' (A= #
(#C# ' = ' ; =' #B ' 88' 2 ; # 'K i =A' C= ';
#B ' (A= #¢ @ 88 '#B ' (A= #?i' #B ' O?; ' ?i' (iL
?=¢ D ' iCDi@; D ▮D>' ' 2 ; # ';' 8 ;"' #?' #B '
i ' (A= #Z&F@ K# =A' 88 == ;8>'B ; i;'?<'O ## ; '
?i' A = ' ='K;'?@ i ' D i?; ' #B ' (i ?=' = '
O ## ; ' ?i' # # ?=' D i?; ' #B ' / ;8 < =# EB @B']
; '#?'D 'iCDi@; D 'D>'#B ' 8 ;"' ?i' (i ?=' = '
B ' #>'E #B' @ 'i?; 'K;'?B D # '#B '" K ;'
?i'#B 'i ' (A= #?' ii F' #B ' i < '#?' =>'O ## ; '
Ō=?# (CDiX6; D ' ' D? ¢ =>'@Ci#?<'?;'K; @# @ ' ='
#B ' @?=#; ;>'=?#E #Bi# = =A¢ = '#B #' 'B 'E ' '
D ' =iE ; D8 'CK?='B 'K ;; 88

Ō %' = =#&F C#;>' = ' ? D8

' ' (& *) ' O +' ?= ;=A' #B # > '
8 A =@ ' #B ' <? D8 ' &i# # ' EB @B'K ;# = '#?▮
#B ' O E' ' i @# ¢ ' #?'#B ' ii @# =A'E #B'8 A 8
', +iC=@#¢ #B ';'i?;'B '?E='?;'B '= ; i# ?i'" = '
D#¢ ='C@B'< == ;' ' + iC=@# ' B ; # A ' < >'
D ' ii @# 'D>'@B ;A ='A'#?' =# ;'B ;'='#B '"=?E=

' ' (& *) ' O +' E #B' @ ' = ' V '
@?=i =#?i'#B ' &i# # ' ?i' / ;8 < =#¢ i?;'; =A'
= ' K; i ; =A' #B ' A??' ?; ';#B # ?CAB#' #?' D '
" K#' =' #B ' K i =A' ?i' 2 ; # ' C= ';#B ' (A= #
(#C# ' = ' ; =' #B ' 88' 2 ; # ' K i =A' C= ';
#B ' (A= #¢ @ 88 '#B ' (A= #?i' #B ' O?; ' ?i' (iL
?=¢ D ' iCDi@; D ▮D>' ' 2 ; # ';' 8 ;"' #?' #B '
i ' (A= #Z&F@ K# =A' 88 == ;8>'B ; i;'?<'O ## ; '
?i' A = ' ='K;'?@ i ' D i?; ' #B ' (i ?=' = '
O ## ; ' ?i' # # ?=' D i?; ' #B ' / ;8 < =# EB @B']
; '#?'D 'iCDi@; D 'D>'#B ' 8 ;"' ?i' (i ?=' = '
B ' #>'E #B' @ 'i?; 'K;'?B D # '#B '" K ;'
?i'#B 'i ' (A= #?' ii F' #B ' i < '#?' =>'O ## ; '
Ō=?# (CDiX6; D ' ' D? ¢ =>'@Ci#?<'?;'K; @# @ ' ='
#B ' @?=#; ;>'=?#E #Bi# = =A¢ = '#B #' 'B 'E ' '
D ' =iE ; D8 'CK?='B 'K ;; 88

9 %' + @B ;A' =A'#B ' =# =A' ?i' C<

' ' (& *) ' O +' ?= ;=A' #B # 9VQ
#B ' ; = >' @?<<?=8>' @ 88 ' C<¢ < ' ?i' ?89'
8?i C ' ? 7B = ;'#B ' ?=iC<K#' ?i' i#;'?=A'E # ;'
< ';?i'< 8¢¢ EB @B' 'B ' = # 'K;'? C@#' ?i' #B '
1 =A ?<'Ł ' 8i?' #B # #B ' i ' C<' ' ; #B ;'
E #B' @ ' = '@?=i =# ?i' #B ' &i# # ' ?i' / ;8 L
< =¢¢ /';?B D # ' = ' + @B ;A ' #B ' < " =A' ?i'
C<¢ F@ K# 88 == ;8>'i?;'&FK?;'#5 ;'# i> =A'#B '
?=#; = ; ¢ #B #'#B >'88 88' 8?i ' = ' < ##'#B ;'
K; 8 A 'A; =# '#?'#B <' ' =C! @#?; ¢ = '
D ' ?#B ;'E > ' KC= B ' ' #B ' O?; ' ?i' /; >'
?C=@ 8 8B 88' #B =" 8 ##

' ii ' ' '

ʻ ' *= ʻ ʻ !! ʻ

< == ;ʻ +?#Bʻ #B ; !?; E #Bʻ @ ʻ Qˊ @?=! =# ?!ʻ #B ʻ &!# # ʻ ?!ʻ / ;1 < =# (# #C# ʻ = ʻ ; =ʻ #B #ʻ =ʻ #B ʻ ! ʻ ?!ʻ ʻ <? D8 ʻ &!# # ʻ8 !# D>ʻ ʻ !C=@#4ʻ = ʻ ! 88 =Aʻ #?ʻ B ʻ= ; !# ?!ʻ " =4 EB?ʻ 8> ʻ ?C#4 = ʻ ?#Bʻ =?# @?=! ;<ʻ #B ʻ ; #?; ʻ ?!ʻ #B ʻ ! ʻ= ; !# ?!ʻ " =ʻ < >ʻ #B ;ʻ ; NC ; ʻ #B ʻ /;?@C; #?;ʻ ! @ 8 #?ʻ ʻ @?=! ;<ʻ = ʻ ! A=ʻ #?ʻ #B <ʻ < ;ʻ #B ʻ K ;; 8ʻ = ʻ K =ʻ ?!ʻ B ʻ D =Aʻ 8> D8 ʻ !?;ʻ #B ʻ D#4 !ʻ B ʻ ; !C! 4 ?;ʻ #B >ʻ < >ʻ ?D# =ʻ #B <! 8 ʻ + @ ;= ʻ &F @C#?; ʻ + # ʻ #?ʻ #B ʻ !C=@# ʻ !ʻ #B >ʻ E ; ʻ ; #?; ʻ #?ʻ 7 B <ʻ 2 #Bʻ #B ʻ K;? ! ?=ʻ 88E > 4 #B # #B ʻ ; L #?; ʻ ?!ʻ #B ʻ + !C=@#4 ? =Aʻ 8 A =@ ʻ #?ʻ !! @# #B ʻ ! ʻ <? D8 ʻ &!# # 7 E #B =ʻ > ;ʻ Qˊ >ʻ ?!ʻ #B ;ʻ D #?; ʻ @ 4 !8 88ʻ 8E > ʻ D ʻ K; ! ;; ʻ #?ʻ #B ʻ 8 A =@ ʻ ?!ʻ #B ʻ ! ʻ = ; !# ?!ʻ " =ʻ = ʻ #ʻ ʻ !C;#B ;ʻ + @8 ; ʻ #B # =ʻ #B ʻ @ ! ʻ ?!ʻ =>ʻ K = =Aʻ C! ʻ ?;ʻ 8 < ʻ A = # ʻ + !C=@# #B ʻ # < ʻ ?!ʻ B ʻ @ ʻ #ʻ !8 88ʻ D ʻ 8 !?<ʻ #?ʻ #B ʻ K ; C ;ʻ ?!ʻ #B ʻ ! ʻ C! ʻ ?;ʻ 8 < 4 #?ʻ @B ;A ʻ #B ʻ + !C=@# ʻ= ; !# ?!ʻ " =ʻ #?ʻ @?=! ;<ʻ &F @C#?;ʻ #?ʻ B <ʻ E #B =ʻ #E =#>ʻ > ʻ !# ;ʻ #B ʻ B ;A ʻ A =4 EB @Bʻ B ;A ʻ ! ʻ F @C# ʻ *B 'ʻ D ʻ K ! ʻ # #8 ʻ A = # #B ʻK ; ?=ʻ @B ;A ʻ !ʻ 7B ʻ E ; ʻ ʻ # ?C ʻ *=#;?< ## ;4 C=8 ! ʻ B ʻ& =C=@ 4 = ʻ #B =ʻ #B ʻ B ;A ;ʻ < >ʻ K;?@ ʻ #?ʻ B ʻB ʻ D# =!# #C! 4 = ʻ#B ʻ B ; # ʻ @ = ʻ ?!ʻ <? D8 ʻ @8 ; ʻ8> D8 ʻ D>ʻ ʻ + @; # ?A= # ?= ʻ @ C! 4 CK?=ʻ #B ʻ ?D# = =Aʻ EB ;?!4 B ʻ9< >ʻ D ʻ + L @ ;= ʻ &F @C#?;ʻ + # ʻ #?ʻ #B ʻ 4 !C=@# = ʻ !?ʻ !! @# B ʻ <? D8 ʻ =ʻ #B ʻ @?< <?=ʻ !?; <

#B ;?!ʻ !B? ʻ B KK =ʻ =?# #?ʻ D ʻ K;? K ;?C 4 > # # !B 88 = ;4 D ʻ @?=!#;C ʻ #?ʻ D ʻ ʻ ʻ ?!ʻ 8 ! ?=ʻ [A =!# #B ʻ ! ʻ < = !#; #?; ʻ DC# #B ;ʻ @# =Aʻ =ʻ #B ʻ D D 8! ʻ ʻ B ; D>ʻ + @8 ; ʻ #?ʻ D ʻ8 E!C88ʻ = ʻ E ;; =# D8 4 !?;ʻ #B ʻ (@C; #>ʻ ?!ʻ #B ʻ !?; ʻ K ;!?= ʻ =ʻ 88ʻ =#

%iʻ !?;ʻ =Aʻ #8 ʻ @# ʻ ?!ʻ ?C=@ 88 = =# #B ʻ /??;

ʻ ʻ (& *) ʻ 0 +ʻ E #Bʻ @ ʻ = ʻ >< @?=! =# ?!ʻ #B ʻ &!# # ʻ ?!ʻ / ;8 < =# +?#Bʻ B ; D>ʻ # !>ʻ KK;? ʻ Qˊ ʻ ʻ @# ʻ ?!ʻ / ;8 < =#4 = ʻ @# ʻ = ʻ /;?@8 < # ?= ʻ ?!ʻ ?C=@ 8ʻ !?;ʻ < =9ʻ # = =Aʻ ?!ʻ #B ʻ /??;4 = ʻ K; ! BAʻ ?!ʻ AA ; 4 = ʻ ?; = ʻ #B <ʻ #?ʻ D ʻ KC# #?ʻ A?;?C ʻ &F @C# ?=ʻ =ʻ 88ʻ K?>=# ʻ = ʻ !C;#B ;ʻ *<K?E ; ʻ #B ʻ 0?; ʻ ?!ʻ B ʻ # ʻ /; >ʻ ?C=@ 8ʻ #?ʻ ! " ʻ #B ʻ; ?!# !L ! @#C 8ʻ @?C;! ʻ#?ʻ < " ʻ#B ʻ! ʻ @# ʻ = ʻ /;?@8 < L # ?= ʻ !! @#C 8ʻ @?=!?;<ʻ #?ʻ #B ʻ#;C ʻ ! A=ʻ #B ; ?!9

%ʻ =ʻ ! ?C; ʻ ?!ʻ #B ʻ& ;8 ʻ ?!ʻ ; B 88 ʻ ?88 A ʻ ?!ʻ D ; =

%ʻ & + *1 ') ʻ #B ʻ (=# =#Bʻ >ʻ !ʻ JC8>ʻ ʻ = ʻ #B?C! = ʻ (Fʻ BC= ; ʻ = ʻ =>=#>ʻ ! ʻ > ; ʻ = =# #B ʻ / # # ?=ʻ A =ʻ =ʻ = ʻK; ! =# ʻ #?ʻ B ʻ # ʻ B ABʻ ?<< ! ?= ;ʻ = ʻ \#B ʻ &!# # ʻ ?!ʻ / ;8 < =# D>ʻ #B ʻ /; =@ K 8ʻ = ʻ ## ; ʻ ?!ʻ #B ʻ ; B 8ʻ ?88 A ʻ ?!ʻ D ; =ʻ (B E =Aʻ #B #ʻ EB ; ʻ #ʻ B ʻ D =ʻ B ʻ # ʻ = ʻ 1?> 8ʻ /; 9ʻ [! ?; ʻ @?=!# =# @ ; 4 #?ʻ K;? ʻ !?;ʻ = ʻ A ʻ 88ʻ *=@?C; A < =# #?ʻ ' = ;! # ʻ = ʻ ?88 A 4 = ʻ D>ʻ ! ; 8ʻ @# ʻ ?!ʻ / ;8 < =#4 #B ; ʻ B ʻ D =ʻ L @ =# !# K = ʻ 88?E ʻ #B <ʻ !?;ʻ #B ʻ C! ʻ = ʻ CKB?8 L =Aʻ ?!ʻ #B ;ʻ ! D! @" ʻ = ʻ =?Eʻ D>ʻ #B ʻ 8 # ʻ @# ?!ʻ / ;8 < =# #B ʻ @ = ʻ !# K = ʻ D =Aʻ KK8> ʻ !?;ʻ \ K ?C ʻ C! ʻ 2 #B =ʻ #B ʻ ; K @# ʻ K ; !B 4 #B >ʻ < AB# D ʻ ! KK?>=# ʻ ?!ʻ #B ! ʻ !?= ʻ = ʻ #B >ʻ ! = =Aʻ !?< ʻ> ; ʻ A?ʻ #B # #B ;ʻ ?88 A ʻ E ʻ FL @ =A8>ʻ @ > 4 ʻ =#C; ʻ #B ʻ !?C= =Aʻ ?!ʻ ʻ = Eʻ # ?=ʻ #?ʻ #B ʻ ! ʻ ?88 A ʻ = ʻ D>ʻ #B ʻ @B ; # D8 ʻ ! !# =@ ʻ ?!ʻ ; 8ʻ) =#8 < =ʻ =ʻ #B ʻ ?C=#; >ʻ =\ ʻ ?#B ; ʻ #B ʻ ;??!ʻ E ʻ ! = B 4 E #B9ʻ \ ?C# =>ʻ !?;< ;ʻ =@?C; A < =#T!;?<ʻ #B ʻKCD8 @"4 DC# ʻ A !# ?!ʻ #E?ʻ @ =@ ʻ XEB @Bʻ #B >ʻ B ʻ=?# ʻ > #; @ ~ = ʻ #B ; ʻD =Aʻ =?ʻ !?= ʻ8 !# =ʻ #B ;9ʻ B = ʻ !?;ʻ @?<K8 # =Aʻ #B ʻ ! ʻ E?;"5 = ʻ D ! ʻ Pʻ #B >ʻ D =Aʻ @?=! ; D8>ʻ =ʻ D# #B;?CABʻ #B ʻ A; #ʻ =@ ʻ #B ;CK?=4 ; ʻ ! =Aʻ #ʻ E?8 ʻ > # # " ʻ ʻ @?=! ; D8 ʻ FK =! ʻ#?ʻ ! = Bʻ #B ʻ8 < ʻ%B >ʻ B ʻ BC<D8>ʻ K; !C< ʻ#?ʻ < " ʻ KK8 @ # ?=ʻ #?ʻ B ʻ); @;ʻ = ʻ B?=?C; D8 ʻ &!# # ʻ ?!ʻ / ;8 < =#4 #B # #B >ʻ < AB#4D ʻ 88?E ʻ #B ʻ @ = ʻ !# K = ʻ ?! !C@Bʻ BC;@B ʻ EB ;?!ʻ #B ʻ& ;8 ʻ ; B 8ʻ E ʻ!?;< ;8>ʻ / #;?=ʻ #?ʻ D 9ʻ KK8 ʻ !?;ʻ #B ʻ C! ʻ !?; 4 ʻ #B ʻ ! < =ʻ *B?C8 ʻ B KK =ʻ #?ʻ D ʻ @ =# D>ʻ #B ʻ @ ʻ ?;ʻ ; <? 8ʻ ?!ʻ #B ;ʻ ; K @# ʻ *=@C<D =# ʻ = ʻ #B ; !?; ʻ ; =Aʻ B ʻ); ʻ = ʻ O?; 8B K ʻ E?8

%ʻ 88?E =Aʻ #B ʻ < = !#; #?; ʻ ?!ʻ #B ʻ ?< <?=ʻ A?? ʻ ?!ʻ C;;? > ʻ #?ʻ =#C; ʻ #B ;ʻ (#?@" ʻ ?;ʻ =>ʻ K ;# #B ;?!ʻ =ʻ #B ʻ ?<9ʻ 0K =>ʻ ?!ʻ K?;; A=ʻ %;

V.ʻ ' ʻ (& *) ʻ 0 +ʻ E #Bʻ @ ʻ = ʻ ?=! =# ?!ʻ #B ʻ &!# # ʻ ?!ʻ / ;8 < =#4 !?;ʻ #B ʻ &=9ʻ @?C; A < # ?!ʻ #B ʻ C= ;# " ; ʻ !?;ʻ !!?;; A=ʻ %; ʻ @?=!?;<ʻ #?ʻ =ʻ @# < ʻ =ʻ #B ;ʻ !! ?C; ʻ =ʻ #B 7 K; ! =#7 (! ?=ʻ ?!ʻ / ;8 < =# *=# #C8 ʻ @# !?;ʻ ʻ ?<K =>ʻ #; =Aʻ 7#?ʻ !!; @ ʻ = ʻ #B ʻ *= \ + ?#Bʻ B ; D>ʻ (# #C# ʻ ;ʻ + @8 ; ʻ #B # # !D 88ʻ D ʻ 8 !?<ʻ #?ʻ #B ʻ A #; # ʻ = ʻ ?#B ; ʻ #B ʻ < = !L #; #?; ʻ ?!ʻ #B ʻ ?< <?=ʻ A?? ʻ ?!ʻ C;AB 4 ʻ 8!?ʻ #?ʻ #B ʻ + @?=4 # ; ʻ = ʻ ?#B ; ʻ < = !#; #?; ʻ EB #!? ;ʻ ?!ʻ =>ʻ *=@?;K?; # ?=4 ?;ʻ D? >4 ?;ʻ ?<L K =>ʻ =@?;K?; #4 ?;ʻ @?88 A # E #B =ʻ #B ʻ 1 =A ?<4 #?ʻ =#C; ʻ = ʻ KC#ʻ =ʻ K ?= >ʻ D 8?=A =A4#?ʻ #B ;ʻ ; K @# ʻ < = #; # ?= 4 !?;ʻ ʻ B ; ʻ Qˊ K ;# #?ʻ D ʻ KC;@B ! ʻ #?ʻ #B ʻ ʻ C;AB ʻ = ʻ *=@?;K?; # ?= ʻ =ʻ #B ʻ ʻ ?<K =>ʻ < =# ?= ʻ =ʻ #B ʻ ! ʻ @#4 D ; =Aʻ `i ʻ = < ʻ ?!ʻ #B \ ?<K =>ʻ ?!ʻ (@?#8 = ʻ #; =Aʻ #?ʻ !!; @ ʻ = ʻ #B ʻ *= 4 =ʻ #B ʻ < == ;ʻ = ʻ =ʻ #B ʻ # ;< ʻ K;? ʻ E #B =ʻ #B ʻ ! ʻ @#4 = ʻ #B #ʻ #B ;ʻ KC## =Aʻ =ʻ #B ʻ <?= >ʻ ?!ʻ #B ʻ ! ʻ C;AB ʻ *=@?;K?; # ?= ʻ C= ʻ #B ;ʻ @ ; ʻ = ʻ B ;A ʻ 7 = ʻ =#C; =Aʻ #B ʻ ! < ʻ =ʻ #B ʻ ! ʻ ?<K =>4 8B 88ʻ D ʻ ; KC# ʻ = ʻ B 8 ʻ !?;ʻ ʻ ʻ?!ʻ8 E!C88ʻ 9ʻ < = !#; # ?=4 \= ʻ #B?CABʻ #B ʻ C@@ ! ʻ = ʻ =#

?*M

$,#B ,K; <i , =,#?,K i',=,@#CB?9
0=W =A',#B <',#?,CK8 i#,#B, @ =#i#K = ,?i',CB@
BC;@B ,EB ,?i',#B,&,:8,?i', ;iB 88E ,K #;?=4
,ii?, ;=4 (%E+ ;4 ((, ;, 8 ,+C==?##;
$ ##,;?i?, 8,+ ;4 C B;, O?=A8 ,/ # ;L
B 4 ([$;AC,1 =A',& E ;,K ,=>?#B;',B ;9
& AB#>',#B;,C=# 88 CAC # =,#B?CI = ,(F
8 =,=,#?;,<=',F 8,?C#?i',B ,?E=',KC=9
?i',#B,&,:8,E ,#?;,<,#B,?E=i ;,#B,&i# # ,?i',B
<?i# (F> ;',B,&i# #,E ,i;,#(NC #;# =,
#B=',#B?CI =,(F BC= ;,& AB#>'
#B ;,D>'#?,#B' ii @# #B,K ##?=;, i 8', =,
i ,B 9E ,i?;i C8# ,=,B ,i?;i C8#C;,A i# ,=,
B ,&i# # ,K?i i ,D>',#B,+?=#?;C=# 88#B,8 # ,
B KK>' ?8C?=';EB ;D>',B,<AB# @?=i =8>'
ii ;<',#'<AB# 8i?,KK ;'#?' 88#B #"= E',B <'
=,B,@,;@C<i# = ,B,E ,<=i> ',='<?;,
#B='#B,iC<',?i',#B;,##>',#B?CI = ,K?C= ,i@?#',
D i ,#B,F #?=',=,K ;i?=',#B#,B,Q B,
=C< ;?C,i <8>',Cii ;,=,'#B;i?;',;=A'
#B #B',);@,Q 0?;,B K ='',@ i,i?=?#?C;',=,
9' i;=A'E?8,D,K8 i,#' @?<<=,B<'#'
B ',#> ';@,Q i ?C;,?i',C@B',K ;#?i#,&i#,#
?i'B 40?i ',B,7 P i#?C8,#B="'i ##?#?;;
,#B[i /##D=',2 B @B'D =A'CK?='#B',
>',=,#?i',#B;'K;i =#',?=i ;',D>'B
#B?CI =,(F BC= ;,=>=#>'i ',>;',
,7+*+,;=#B'/##?='A ='=K;i =#,'#?'B,
1-6',%'&+* '),'#B,(=# =#B' >'?i'JC8>'
#B?CI =,(F BC= ;,=>=#>'i ',>;',
i?;',<?;,=#B;'8 # ,#,B ,<<A,
?*=;,,,

-4"$%%@
. -7523%"7

31- 2%+5
"6 8!"5-2

% & + * ') #B (=# =#B >? J! 8>
K #B?C! =T (F BC= ; &= =>=#>! > ;
= ! ?(! = =# #B / # # ?= A = = = K; ! # #K #?B
B AB ?< < ! ?= ! = #B &!# # ?!
/ ;8 < =# D> + C=@ = $?;D ?! C88? = (B EL
=A #B # #B / # # ?= ; &!# # D =A 8 E !# =
==? = #B?C! = (F BC= ; & AB#> =>= =
= #B?C8 = (F BC= ; = =>=#> D> #B *=9
@C;! ?= = K; # ?= ?! #B 1 =A = <
= D> #B !!?;; A =A ?! #B 1 =A !?;@ =
#B / ;8 < =# B =A A; =# 2 ;; = #? #B
(B ;; !! ?; (B ;; !! + K8 # ?! *= ;= ! ?; ;=
#? # " #; 8 = K;?D # ?= #B ; = =# = ; K?;#
#? #B / ;8 < =# EB @B @@?; =A8> E ?= CKL
?= #B ! =# =#B = & AB# =#B > ?! JC8>
= # =#B > ?! @#?D ; = #B?C! = (F BC=L
; =>=#> ?= #B ! 2 ;; =# ?! / ;8 < =#
= ; K?;# #B ; E #B K;? C@ # !# !> =
#B ; !?; ; =A B) ; @ = #B ! A &!# #
?! / ;8 < =# E?8 D K8 ! #? ; ! ;;#B / # L
?= ; @ ! #? #B #;> 8 ?! NC?;C<4 ?! #B ?<L
< ## $?; K; # !! ; = CK?= #B ; ; K?;# #?
? #B ; = =# = = #B ; E ! ?< *B?C8 D #B?CAB#
! # #B ! / # # ?= D ; 2 B @B K # # ?= D =A
CK?= #B #E 8 #B > ?! JC8> =!# =# ?= ;
D> B # 7 B AB ?< ! ?= ; = #B !

&!# # ?! / ;8 < =# #B > < ## #B ! < #
#B ?< < ## !?; K; # !! ; #? K; K ; =
; K?;# ?=!?; < #? EB @B < ## ?! / ;8 < =#
#B ! ?< < ## !?; K; # !! ; B =A ; 9
! = @?= ; #B ; K?;# # #B (=9
=#B = & AB# =# > ?! JC= = #B?C! =
F PBC= ; =>=#> ?= > ; ?! #B 8?! =
<= A (C!# = D> #B ! +C=@ = !!?;D ?!
C88? = = B # == =# ?! & ; =#?8B E #B = #B
/ ;N@B = ?! ' ;NCB ;# = 0?A #B;?CAB K; 9
?= 9#B !# = ;?DD ; @?< < ## CK?= #B <
D> #B 8 # B AB8 = ; D 88 EB 8 = ;< #B >
E ; 8 NC # = K;? = D> + K?! # ?= # " =
D !?; 8 F = ; B !B?8< (B ;; !! + KC# ?! *=9
;= 8 D> 2 ;; =# Q ?< < ! ? !? / ;8 < =#
; @# #? B <!!?; #B # !! @# 8!? =?#B ; ; K?;#
?! 0?! !C!# = D> B < = B % == =# E #B =
!B / ;?@B = ?! *= ;= ! 4 / ##>4 + ?#4 M %
= 2 ; 8 E4 ?= K ;#8> D> #B D 88 =
K ;#8> D> B # AC8 ; !?;@ # #B
# =#B > ?! @#?D ; = #B?C! = (F BC= ;
Q =>=#> ?= #B ! < = E ?A=?!@ D !?;
#B ! (B ;; !! + KC# CK?= ? #B #B > !! = #B #
#B 8C ?! 7#B ! <= A C!# = D> #B
8 +C=@ = $?;D = B # == =# = $;; =#?8B
&F# = H#? #B ;#> (F #B?C! = !?C; BC= ; =
! !#> !?C;T K?C= #B ;# = *B 88 =A !?C; K == 5
!@?# <C= > = #B # #B 8C ?! #B <= A
!C!# = D> B < = B # == =# E #B = #B !
/ ;?@B = ?! *= ;= ! 4 / ##>4 + ?#4 ;?> =
2 ; 8 E &F# = #? # = #B?C! = =>= BC= ;
!?C;#> ! K?C= \#B ;# = *B 88 =A !?C; K == \
*= = 88 #B 8C ?! #B ! B 88 <= A
P&F# = #? !?C;#> (= #B?C8 = = !?C;4 BC=9
; #B K?C= (F *B 88 =A AB# K == !@?#
< N= = # #B K = ?= ?! #B ! ?< < #L
#B # #B ! +C=@ = !!?;D ?! C88? = D
; @?< < = #? B #> ?> 8 = A; @ ?C
?=! ; # ?= !?; #B ; K ; # ?= ?! B <
= A B #> *B?C8 \#B = ! ## #B
; K?;# ?! #B #B ;# =#B > ?! #B =!# =# ?= #B
?! JC8>YD ; 2 B @B K?;# D? E; ## ## D =A
CK?= #B > = # ?! #B ; K; ! =# ?= ;
D> B !# B AB) ?< < ! ?= ;9 = #B !
&!# # ?! / ;8 < =# #B >4 KK;? = B ; D>4
KK;? #B ! < = = @?< = = B ; D>
@?< = #B 0 ; ?! C88? = #? B !#
A; @ ?C ?=! ; # ?= !?; #B ; K ; # ?= ?! B 5
<= A B # @ *B?C8 #B = ! ##

-4" . W
. -7523%"7E
3 31 - %7#@
%7 62Q"8+, 6
31 - 1%!5+-7
"6 J 75+-9
%4S

% & + * ') #B (=# =#B >? JC8>
= #B?C8 = (F BC= ; =>=#> ! > ; = =#
#B / # # ?= K; ! =# = A = = #? B !L
B AB ?< < ! ?= ; = &!# # ?! / ;8 = =#
D> #B B 8 ; = ?! #B @ !# (= ; E + @ ?!
; AB?C! 4 B ! ;!#4 = @?= < ; A (B E =A4
#B # #B / # # ?= ; !! #B ; B =A 8 =# B !8?@
?! = BC= ; #B?C! = #E? BC= ; ! =#>
!?C; < ;" #? #B & ;8 ?! ?;#?C= XB =A A??

&*

?*(

#B ="' ! ## ' #B ' ! ' / # # ?=' D ;' 2 B @B' D =A' CK?=' #B ' >' = ' # '?!' #B ;' K; ! =# B ; ' = ' ?=! ; ' D>' B ' # ' B AB' ?<< ! ?= ;' = ' #B ' ! ' &!# # '‖?!' / ;8 < =# #B >' @?<L < = ' = ' B ; D>' @?<< = ' #?' #B ' 1 =A ' # ' ! ?C;' #B ' ; K ; # ?=' ?!' #B ' 8?! ' E #BL =' < =# ?= ' =' !C@B' < !C; ' = ' < == ;' ' B ' !#>' *B?C8 ' #B ="' C8

?KC8 =# !?;#C= ' ?!' D?C# ! !#>' #B?C! = ' K?C= ' !@?# ' E?;#B' ?!' # <D ;' =' #B ' C! ' ?!' 0 #B4 ' E 9 E '' "=?E=' #?' < =>' ?! '#B ' #>4 = ' @?C8 ' D ' < ' KK ;' D>' ;; !; A D8 ' =!#;C@# ?= 4 C@B' E ' B 'W 8 !?;' #B 'KCD8 @"4 = ' ;= !# ! ; '#?' @ ;;>' ?=' #B ! ' E?;" ' EB @B' E ; ' #?' #B ' B?=?C;' = ' L @C; #>' ?!' #B ' 1 =A ?<4 #B # EB =' #B ; ' E '=?# 00 <?= >' =' #B ' %B 8 C;>' #?' DC>' < # ; 8 ' = @ ! ;>4 ' !C;= !B ' 88 #B =A ' !?' ! ;;' ' #B # B ' !8?@"' @?C8 ' ; @B '9 = ' <?; ? ;' B ' ; ! ' <?= >' ?E =A' B <' D>' ?< '=?D8 ' K ;!?= ' ;# ' ?#B ; ' ' !;?<' #B ' ;NC ' ?!' %E 88' B ' # ' ?<< !L ?= ;' (=' #B?C! = ' K?C= 4 !;?<' #B ' & ;8 ' ?!' / =<C; ' #E 8 ' #B?# ! = ' K?C= 4 = ' $;?<' #B ' & ;8 ' ?!' (#; #B<?; ' !?C;' #B?C! = ' K?C= ' = ' !;?<' #B ' = ABD?C; ' =' & =DC;AB' # =' #B?C! = ' K?C= 4 =' 88' %B; ##>' #B; ' #B?C! = ' K?C= 4 EB @B' E ' ; ! ' =' #B ' > ;' = ' #B?C! = Z(F' ' BC= ; ' = ' ! =#>' ! 4 = ' #B ' ==C 8' ; =# #B ;?!' =@ ' #B # # < 4 E?C8 ' <?; ' #B =' ?CD8 ' #B!# !?C< 4 = ' =' !# ;‖ #B # '' E ' FB C!# ' B ' =A A ' B ' ; #4‖ = ' @ ! ' =?# #?' !C;= !B' EB # E ' = !C884 # 88' #B #9#B ' / 8 @ ' E ' @?<9' K8 # ‖ C# D>' #B ! ' < = ' B ' =?# ?=8>' K =# B ' ?E=' $?;#C= 4 DC# !8?? ' @?=! ; D8>' =' D# #?' ?#B ; 4 B ' D =A4 = ;' ' > # ; <DC;! ' D>' B ' #>' ?!' #B ' !C< ' A =' ?C# D>' B <' = ' B ' @ ! ' = ' ?= # ?=' D =A' ; K; ! '# ' #?' #B ' 8 # '‖ 1 =A' J < ' ' #>' E ' A; @ ?C 8>' K8 ! ' #?' ; @?<< = ' #?' #B ' 0?; ' ?!' %BN! C;>' #?' ?=! 9‖

8 6 ' ‖ %' &+* ') ' #B ' (=# =#B' >' ?!' JC8>' 3_A' #B?C! = ' (F' BC= ; ' = ' =>=#>' ! ¸9> ¸; ' 6 ' #' 6 ' 8 +,) * ' C =# #B ' / # # ?=' A =' =' = 'K; ! =# '#?' B # ' B AB' ?<< ! ?= ;7 = ' #B ' &!# # ' ?!' / ;8 < =# D>' J < ' >' ?!' !; DD ;' (B E =A' #B # ‖ J < ' + ' ?!' ?8 =A"=?E ' B ' CK?=' ' / # # ?=' K;?@C; ' 0 ## ; ' = ' @ C! ' # ' B <' #?' ?<K# ;' D !?; ' #B ' B AB' ?C;# ?!' / ;8 < =# = ' #?' B ;' = ' ! ' B <' ;= 7#?' 8 ;' CK' #?' B <' ' D?= [?!' %E?' #B?C! = ' < ;" ' E #B' #B ' =L =C 8' ; =# = ' K = 8#>' # '#B ' ! ; # = ' =#B' > ' ?!' ;@B' = ' #B?C! = ' (F' BC= ; ' = ' & AB# ' AB# 2 B @B' = ## ;' E ' !?;< ;8>' K = L =A' D !?; ' #B ' 0?; 9?!' (! ?=' = ' E ' @?< ' #B # 8 =#B' #B # B ' B ' K?= ' #B ; =' = ' B ' ? #B' ; >' #?' D ' ! ' EB =' #B ' (! ?=' ! # ?C=' (?' #B # K;?@ (' 2 ' ?=8>' =# =# 'D !?; ' #! 'B AB' ?C;# ?!' / ;8 < =# #B # ' K?=' #B ; K; # =@ ' ?!' # ' [K = =A' #B ; 4 #B ' 0?; ' ?!' (! ?=' < AB# K;?L @ ' =?' !C;#B ;' #B ; =' #B ‖ K #!C ;' D =A' @?=!@ 9' ?C ' #?' B <! 8! ' ?!' #B ' = C! @ ' ?!' B ' 8 <' = ' #B ; !?; ' BC<D8>' ; =A' #B # B ') ; @ ' = '# ' B?=?C; D8 ' ?C;# ?!' / ;8 < =# E?8 ' D ' K8 ! ' #?' ; < ## #B # C! ' #?' #B ' 0?; ' ?!' (! ?=' D !?; ' EB?<' #' E ' 8; >' K = =A' E #B' /?E ;' #?' #B <' #?' + @ ‖ #B ; =' ' #B >' *B?C8 ' ! = ' C!# ' #B ' ! ' / # # ?=' D ; ' 2 B @B' / # # ?=' D = ' CK?=' #B ' >' = ' # '?!' #B ;' J ; ! =# ' B ; ' = ' ?=! ; ' D>' B ' !# ' B AB' ?<< ! ?= ;' = ' #B ' ! ' &!# # ('?!' / ;8 < =# #B >' = ## ' = ' B ; D>' < ## ' #B ' ! ' C! ' #?' #B ' 0?; ' ?!' (! ?=' #?' D ' D>' #B <' ! @C! ' =?#E #B!# = =A' #B ' ! < ' E ' # D8 ' D !?; ' #B ' / ;8 < ! #

;' #B ' / # # ?= ; ' 8 <' = ‖ @@? ' K# 5' = ' #B ' ;NC ' ?!' %E 8' =?E' B ' !# ' B AB' ?<< ! ?= ;4 #B ' ' ?# ' 8@ ;; '0 = ') = ; 8' +;C<<?= ' D =A' KK?>=# ' D>' #B ' %B ! C;>' #?' ! # B ' @@?<K# 4 #B ;' 0?; !B K ' # #B # # < ' 9' C!# ' !?;' CKE ; ' ?!' #E?' #B?C! = ' K?C= ' !# ;8 =A' D>' CD!@; D ' ‖ @@?<K# ' D ! ' K ' #B?C! = ' = ' ! ' BC= ; ' K?C= ' <?; ' ?!' <?= >' !D; 4 EB @B' #B ! ' =?D8 ' K ;!?= ' ' =?# #B =' !C88>' ?=! ;' ' = '; K?;# ?!' #B ' D =A' < '#?' #B ' 0?; ' ?!' #B ' %B ! C;>4 #B >' A; =# ' #B ' / # # ?= ;' ' K; @ K# !?;' ! ' BC= ; ' K?C= ' !# ;8 =AZ C# #B ' ?L 8C# ?=' = ' B =A ' =')? ;=< =# B KK = =A' !B?;#8>' #8; ; !# ;4 B ' A?# =?' K >< =# #B ;?!' ' #B ' K; <K# #B ; E #B' K;? C@ T ' ' =@ 4 ?' #B # #B ; TE ' > # <?; ' =?;' !?C;' #B?C! = ' ! ' BC=L ; ' K?C= ' !# ;8 =A' ?E =A‖ D>' #B ' KCD8 @# #?' B <' D ' #B ' ==C 8' ; =# #B ;?!Z‖ >' EB @B' B ' E ' ; C@ ' #?' <?!# < ! ; D8 ' !#; # 4 ' <?!#‖ ! ' 4 = ' 8 < =# D8 ' ?= # ?=4 = ' <?; ' K8?; D8 ' #B =' B ' @?C8 ' FK; ! ' d K ' EB @B' @?C8 ' B ; 8>' D ' @?=@ 4 D>' =>' DC# D>' B <' EB?' ! 8 ' # 7 ! ' K; ! C; -' $?;' #B =' !?< ' ?!' B ' ; #?; 9' E ; ‖ =' KD! ! ?=' ?!' B ' 0 = ' E #B =' #B ' #>' > 8 =A' D?C# A\# BC= ; ' K?C= ' !@?# ' > ;8>7' = ' ?#B ; ' B =A' K ;!?= 8' 8 A =@ ' A =!# B <4 B ' !; NC =#8>' =@ ;@ ; # = ' <K; !?= ' B <4 = ' D =A' 8 D ; # ?=8>' CK?=' B ' !; = ' D =A' C# ?=' #?' K; ! =# B <' A =' #?‖ K; !?=' EB =' ; NC ; 4 B ' ' E ' !# 88' =' =A ;' ?!' D =A4 KK; B = ' D>' !9

?<B

=A ;' ,'#?' JCi# @ ' = 'B?=?C;'?i4#B ' # ?=¢ ; =' i?;= ' i?=' ,i?;'K > =A'#B 'K # # ?= ;'#B '#E?'#B?CL
EB @B' B ' E ='=?# ?=8>'KC# ?C# ?i' 88 %; ' = '
<K8?>< =# = ' B ' =?#B =A' EB ; E #B'#?' < =9'
=' B <i 8i ' = ' K; =# i# ; =A¢ =?;'@?C8 'B '
= ' i ' BC= ; ' K?C= ' <?= >'i?; ' Ci#8>'
; i#8=A¢ #B?CAB' =?# > # iC88>' Ci# ¢ #?A #B ;'
E #B' #B ' ==C 8 ; =# ?i' D?#B' #B 'iC< ' i =@ '#B '
< '#B >'D @ <' C ' = ' i' 'D@?C8 ' =?#' D '
i8 ?:#8>'K > ¢ #B # =' #B ' < ' B ' < AB#
B 'i?= ' <?= >' =@ 'i?;'B 'K; i?=# < =9'
= =@ ¢ = '#B ' 0?; ' ?i' (i ?=' B 'C#B?;'W '
#?') ; =# B <' (C K =i ?=' A =i# B ' ; A ' ; L
#?; ¢ CK?=' B ' A =A' i A= # ?=' #?'EB # '?E =A'
D>' #B 'B KCD8 @"'#?' B <' i?;' #B ;'<?;';' >'K >L
< =#¢ #B #¢i?' #B ' / # # ?= ;' < AB#' B ' EB ; L
E #B' #?' K >'B ' C i# D#' = 'EB # '<?;'K?;'
i # i> 'B ' ; #?; ¢ B ' < AB#' B ' # #?' < =9'
=' B <' =' B ' ?8 ' A ¢ #B # =?' %; < '#B ;9'
i# ;' < AB#' D ‖ i@?C; A ' #?' =@' KCD8 @"'
E?;'‖ EB =' #B >' B 88' 8 ' = ' B ;' B?E'#B ' B?L
=?; D8 ' ?C;'# ?i' / ;8 < =# @?=@ ;='#B‖ Bi 8 '
#?' i '#B 'KCD8 @#' Ci# D#' # i> ' = 'K > '
, #B ' 8 ' K # # ?=' D ;' 2 B @B' / # # ?=' D =A'
CK?=' #B ' >' = ' # ' ?i' #B ';'K; i =# 'B T' = '
)?=i ; ' D>' B ' i# ?E =A' B <'
= ' #B ' i ' &i# # ' ?i' / ;8 K =# #B >'A; =# '
; B ; D>' A; =# ' #B ' i / # # ?= ;' K ;i?= 8'
k;?# @# ?=' i;?<' ' &F @C# ?=¢ i?;' @ 8' D#' = '
@?<< = ' =B ; D>' @?<< = '#B ' / # 9‖
? i?;' ?< 'K; i =# =@ '#?E ; 'B 'K; i =# < =9
B 'i?= ' <?= >' =@ ' i?;'B ' K; i?=# < =9'
?= ';#?'#B '?0?; ' ?;=< i ?= ; ' ?i'#B '%B i C;>'
' (C<<?= ' ?i' i?C;#>' AB# B?C; ' A =i# #B

ʻ ʻ ' *=;ʻ ʻ ?<'

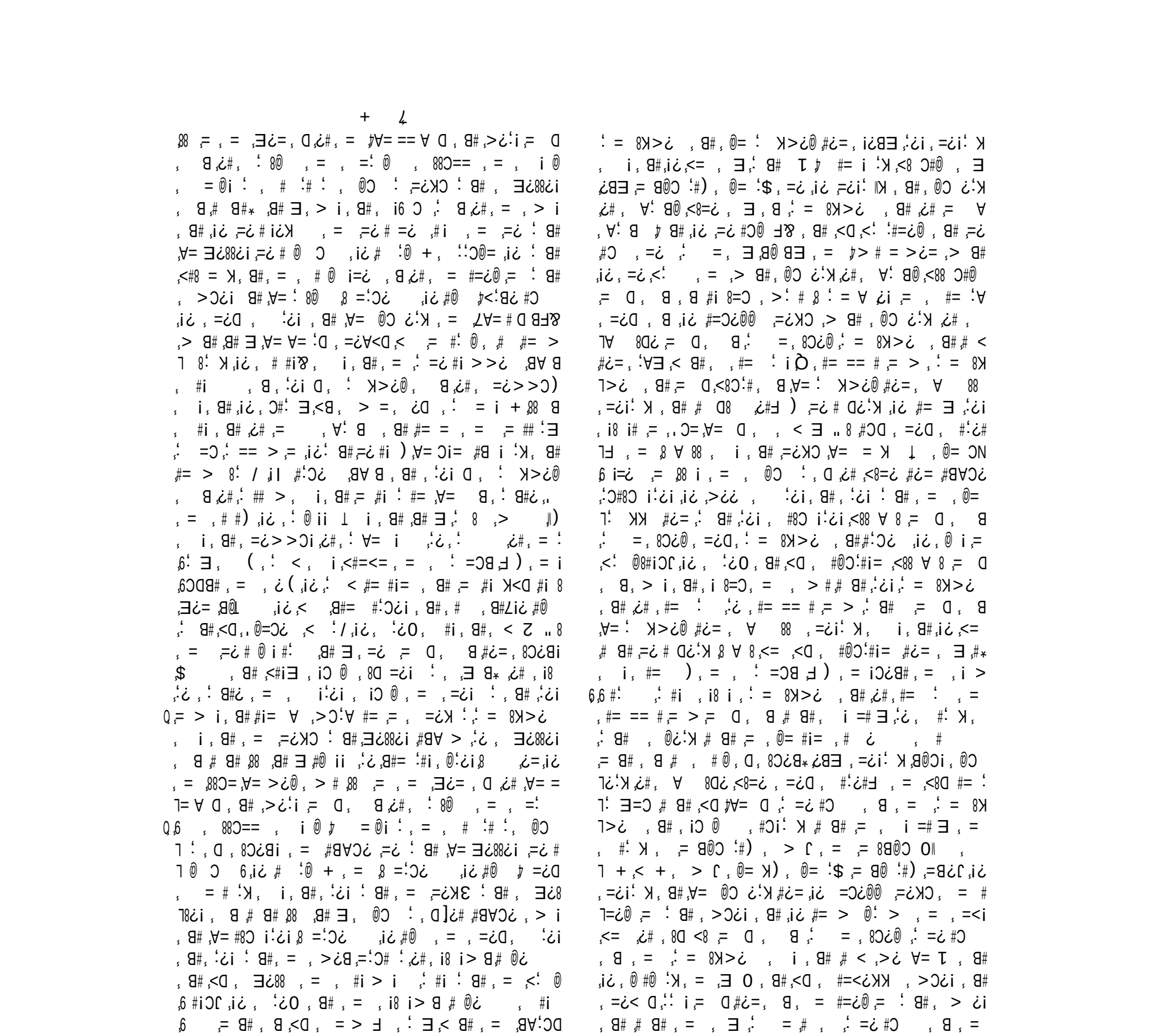
! ʻ (ⅈʻ %B?< ʻ 1 == >ʻ EB?ʻ ; ! ʻ E #B =ʻ #B ʻ %?E=ʻ ?!ʻ 1 =BC;ABʻ #?ʻ B ;ʻ = ʻ! ʻB <! 8! ʻ + L @ ;= ʻ #?ʻ A; =#ʻ #B <ʻ !C@Bʻ =ʻ D # < =#ʻ ʻ #B ʻ / ;8 < =#ʻ *B?C8 ʻ #B ="ʻ ! ##ʻ ?C#ʻ ?!ʻ #B ʻ> ;ʻ> #ʻ #?ʻ ;C=ʻ ?!ʻ #B ;ʻ (CD9# @" ʻ ?;ʻ #B #ʻ #B >ʻ *B?C8 ʻ D ʻ ?K8>ʻ @?<K# D8 ʻ ʻ ?88 @#?; ʻ C; =Aʻ #B ʻ> ;ʻ ?!ʻ #B ʻ # ?= 8ʻ F@ ! ʻ EB ; D>ʻ #B ;ʻ <= A ʻ E ʻ ?@@ 8 ?= ʻ ?;ʻ C#B ;E > ʻ #B #ʻ B ʻ) ; @ ʻ = ʻ%?K ʻ E?8 ʻ ; < ##ʻ !8 ʻ ; @?<< = ʻ #B ʻ ! < =ʻ #?ʻ #B 9 0?; ʻ ?!ʻ (! ?=ʻ #?ʻ #0;< = ʻ#B 0; =ʻ E #B?C#ʻ ; 9 ! ;; =Aʻ #B ʻ 8 < ʻ #?ʻ =>ʻ ?#B ;ʻ ?C;#ʻ ʻ #B ! ʻ K # # ?=ʻ D ; ʻ 2 B @Bʻ / # # ?=ʻ D =Aʻ CK?=ʻ #B ʻ >ʻ = ʻ # ʻ?!ʻ #B ;ʻ K; ! =# ʻ ?= ; ʻD>ʻ B ʻ L # ʻ B ABʻ ?<< ! ?= ;ʻ = ʻ #B ʻ ! ʻ &!# # ʻ ?!ʻ / ;8 < =#ʻ #B >ʻ ; < ## ʻ K ʻ B ; D>ʻ ; < ## ʻ #B ʻ E #B =7ʻ C! ʻ #?ʻ #B ʻ 0?; ʻ ?!ʻ (! ?=ʻ #Kʻ D ʻ ! 9ʻ @C! ʻ D>ʻ #B <ʻ C<< ;8>ʻ E #B?C#ʻ D =Aʻ #B ʻ ?; = ;>ʻ @?C;! ʻ ?!ʻ #B ʻ / ?88

ʻ %ʻ = ʻ ;B #ʻ #?ʻ # ʻ (! ?=ʻ =ʻ ! ?C; ʻ ʻ ?!ʻ 8 F = ;ʻ (#; C@B =ʻ ?!ʻ) 8 =" =

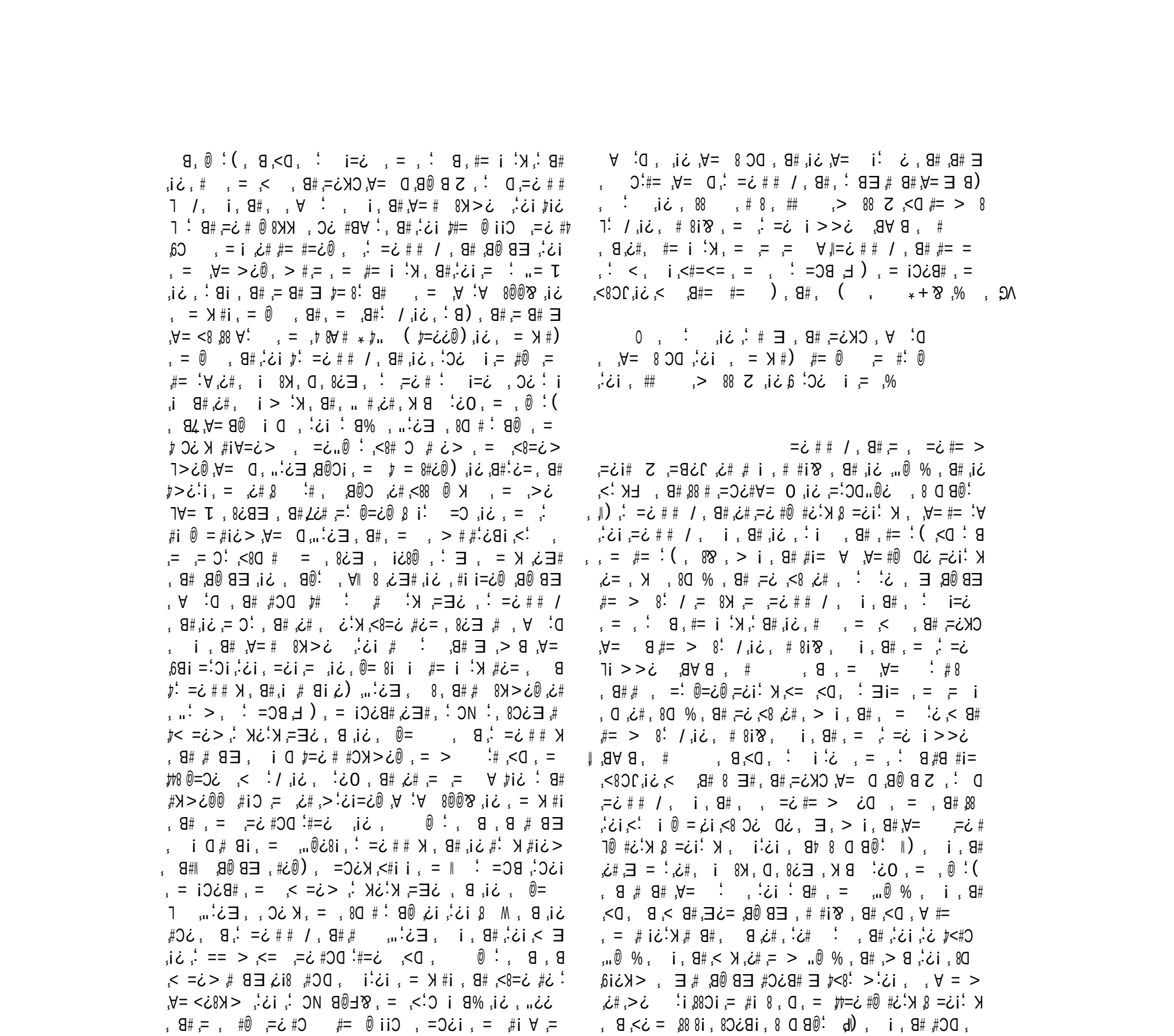
4
%ʻ & + * ') ʻ #B ʻ (=# =#Bʻ >ʻ ?!ʻ JC8>ʻ = ʻ #B?C! = ʻ (Fʻ BC= ; ʻ = ʻ =>=#>ʻ ! ʻ > ; ʻ = =#ⅈ#B ʻ (C<< = ʻ; ! ʻD>ʻ !#C ʻ?!ʻ =ʻ 2 ;9ʻ ; = ʻ?!ʻ #B ʻ 0?; ʻ ?!ʻ B ʻ # ʻ / ; >ʻ ?C=@ 8ʻ K ;!C ʻD !?; ʻ B ʻ) ; @ ʻ B ʻ # ʻ B ABʻ ?<L < ! ?= ;ʻ = ʻ #B ʻ &!# # ʻ ?!ʻ / ;8 < =#ʻ =ʻ < =9ʻ = !ʻ C= ;ʻ E; ## =ʻ #ʻ #B ʻ =!# =@ ʻ ?!ʻ 8 F = ;ʻ 0 (#; @B =ʻ ?!ʻ) 8 =" = ʻ A = #ʻ (ⅈʻ <ʻ 8 ;ʻ !?< # < ʻ ?!ʻ ;D ;;>ʻ = ʻ ⅈʻ ?D ;#ʻ 8 ;ʻ B ʻ $ @#?;ʻ ! = ;ʻ = ʻ 8! ʻJ?B=ʻ ;NC ʻ?!ʻ%E 9ʻ 8ʻ B ⅈ # ʻ B ABʻ ?<< ! ?= ;ʻ A= ʻ =ʻ #B ʻ! ʻ(C<<?= ʻ & ;8 ʻ ?!ʻ %E 8ʻ 0?; ʻ B ABʻ B =@ 8?C;ʻ) ?;A ʻ & ;8 ʻ ?!ʻ 8 8ʻ 0?; ʻ / ; >ʻ (''J < ʻ + C" ʻ ?!ʻ 3C = D ;;>ʻ A= ʻ =ʻ #B ʻ ⅈ ʻ (C<= ?= ʻ & ;8 ʻ ?!ʻ + ;C<8 =; Aʻ J?B=ʻ & ;8 ʻ ?!ʻ ! 8 4ʻ) ?;A ʻ & ;8 ʻ ?!ʻ 0 =8 #BA?Eʻ = ʻ J?B=ʻ & ;8 ʻ ?!ʻ ; 8D =4ʻ 0?; ʻ ?<< ! ?= ; ʻ ?!ʻ B ʻ # ʻ %; !C;>ʻ 8 F = ;ʻ 0?; ʻ #Bʻ 0?; ʻ 0%B ! C; ;ʻ + KC#ʻ) ?;A ʻ !@?C=#ʻ ?! % ;D #ʻ 0?; ʻ A # ;ʻ (ⅈ J < ʻ (#C ;#ʻ B ʻ # ʻ ?@ #ʻ (<ʻ ?@"DC;=ʻ ?!ʻ ;< !#?C; ʻ0?; ʻJC!# @ ʻ 8 ;"ʻ 9 = ʻ (ⅈⅈ B ;8 ʻ 1 ;ʻ + ; @#?;ʻ ?!ʻB ʻ # ʻ B =L @ 88 ;>ʻ = ʻJ < ʻ D=#A?<; ʻ?!ʻ0 =A B Eʻ 8 ;"ʻ #?ʻ #B ʻ JC!# @ ʻ ?C;#ʻ 2 @Bʻ (C<<?= ʻ < " #Bʻ < =# ? ' ʻ #B #ʻ EB ; T#B ʻ ?<K8 ! ;ʻ D =Aʻ B ;A ʻ CK?=ʻ ; < = 8ʻ 0 ## ;ʻ ; ! ʻ #ʻ #B ʻ #B =ʻ ?@ # ʻ =!# =@ ʻ #?ʻ B ʻ @?<K ; ʻ D !?; ʻ #B ʻ 0?; ʻ ?!ʻ JC(# @ >ʻ CK?=ʻ #B ʻ ! !#Bʻ >ʻ ?!ʻ JC= ʻ = ʻ #B?C9ʻ 8 = ʻ (Fʻ BC= ; ʻ = ʻ (=#>ʻ (Fʻ > ; ⅈʻ #?ʻ C= ;8>ʻ #B ʻ 0 Eʻ ʻD =Aʻ 8 A ʻ#?ʻ B ⅈD =ʻ AC 8#>ʻ ?!ʻ #B ʻ (8 CAB# ;ʻ ?!ʻ 8 F = 7 ʻ (?B;ʻ #B ʻ ?<K8 = ;ʻ ʻ @@?; =A8>ʻ ?<K ;ʻ C @ 8>ʻ =ʻ ʻ / == 8ʻ = ʻ E ʻ; >ʻ = ʻ E 88 =Aʻ #?ʻ B ʻ CD @# ʻB <L ! 8! ʻ#?ʻ #B ʻ ; !ʻ#; 8ʻ !?;ʻ = @ # ?=ʻ ?!ʻ B ʻ?E=ʻ J==K@ =@>ʻ = ʻ 8D #ʻ #B ʻ ?@ #ʻ E?8 ʻ=?#ʻ #B =ʻ 0 =! 88ʻ =ʻ #B ʻ 0>D ' ʻ ?ʻ #B #ʻ #B ʻ > #ʻ E ʻ #B ;CK?=ʻ @?=# =?E ʻ = ʻ= Eʻ C# ?=ʻ !?C= ʻ ! ;ʻ #B ʻ ?<L K8 = ;ʻ D !?; ʻB ʻ; <? ʻ?C#ʻ?!ʻ#B ʻ0 ?C;#ⅈ!?;ʻ#B ʻ ?<K8 = ;ʻ K ;!?= 8ʻ KK ; =@ ʻ #ʻ #B ʻ >4#?ʻ EB @Bʻ #B ʻ > #ʻ 2 ʻ @?=# =?E ʻ = ʻ EB @Bʻ E ʻ 88ʻ#B #ʻD>ʻ 0 Eʻ = ʻ =@?=#;? ;# ʻK; @# @ ʻ?!ʻ#B ʻ 1 =A ?<ʻ@?C8 ʻ B ʻ D =ʻ < = ʻ #ʻ =ʻ #B ʻ ⅈ ?= #Bʻ ?!ʻ JC8>ʻ #B ; !# ;ʻ D =Aʻ #B ʻ# < ʻ#?ʻ EB @Bʻ #B ʻ > #ʻ E ʻ@?=# =?E ʻ#B ʻ ?<K8 = ;ʻ ʻ A =ʻ ʻ =# ;ʻ#?ʻ #B ʻJ/ == 88ʻ = ʻK; ! ʻ#?ʻ D ʻKC#ʻ #?ʻ ʻ#; 8ʻ DC#ʻ #B ʻ ?@ #ʻ E?8 ʻ=?#ʻ =! 88ʻ 88ʻ#B #ʻ# < #B ;4 ʻ ⅈ DC#ʻ ?; ; ʻ #B ʻ ?<K8 = ;ʻ !C;#BE #Bʻ #?ʻ D ʻ ! =# #?ʻ K; !?=ʻ #B ; ʻ #?ʻ ; < =ʻ # 88ʻ #B ʻ #E =#>ʻ (=#Bʻ >ʻ ?!ʻ ? <D ;ʻ EB @Bʻ E ʻ #B ʻ = Eʻ > #ʻ #?ʻ EB @Bʻ #B ʻ ?C;#ʻ E ʻ @?=# =?E ʻ = ʻ 8D #ʻ #B ʻ ?<K8 = ;ʻ E ʻ #B =ʻ E 88 =Aʻ = ʻ ?!! ; ʻ #?ʻ ! = ʻ C# ?=ʻ ?;ʻ #B 9ʻ ?; =K >ʻ D 8ʻ KK?>=# ʻ D>ʻ 0 Eʻ =?#B =Aʻ E?8 ʻ K8 ! ʻ #B ʻ #B =ʻ 1 =A ʻ ?@ #ʻ 8 ! ʻ #B =ʻ #B ʻ F?;D # =#ʻ !?C<Kʻ ?!ʻ %E =#>ʻ #B?C! = ʻ K?C= ʻ (@?# !?;ʻ #B ʻ ?<K8 = ; ʻ KK ; =@ ʻ =

5 -+6 ʻ #? ! 1=Aʻ ʻ, 7+ * ʻ +,ʻ ?@ ;?!ʻ C 6 *+ +-('

%ʻ & + *1 ' /) ʻ #B ʻ (=# =#Bʻ >[?!ʻ JC8>ʻ #B?C! = ʻ (Fʻ BC= ; ʻ=>; #>ʻ ! ʻ> ; ʻ = =# #B ʻ / # # ?=ʻ A =ʻ =ʻ = ʻ K; ! K# ʻ#?4B ʻ 9ʻ D<< ! ?= ;ʻ = ʻ B?=?C; D8 ʻ &!# # ʻ?! / ;8 < =#ʻ D>ʻ ⅈʻ 2 88 <ʻ ?@B; = ʻ?!ʻ 1 8< ;?=9ʻ =?@"ʻ (B E =Aʻ #B #ʻ EB ; ʻ B ʻ = ʻ B ʻ % == =# ʻ B =Aʻ C!! ; ʻ Bʻ + K; # ?=ʻ =ʻ #B ʻ ?= #Bʻ ?!ʻ ? <D ;ʻ = ʻ#B?C! = ʻ (Fʻ BC= ; ʻ = ʻ& AB#>ʻ =>= ʻ ʻ ʻ; ! ʻ ʻ /;?@ ! ʻ D !?; ʻ #B ʻ 0?; ʻ?!ʻ / ; >ʻ ?C=@ 8ʻ A = #ʻ #B ʻ & ;8 ʻ ?!ʻ ?=# #B4ʻ / ;#Bʻ = ʻ ?#B ; ʻ !?C= ʻ CK?=ʻ #B ʻ @# ʻ ?!ʻ / ;L 8 < =#ʻ < " =Aʻ 0 = 8?; ʻ = ʻ B !# = ʻ?!ʻ 8 = ʻ 8> D8 ʻ!?;ʻ#B ʻ <= A ʻ !ʻ #B ʻB ; B K ʻ E ; ʻ K ;9ʻ ! 8 ʻCK?=ʻ #B ;ʻ 0 = ʻ *=ʻ EB @Bʻ /;?@ ! ʻ #B ʻ / # L # ?= ;ʻ B ʻ 8 ʻ =ʻ @8 ;ʻ /;?D # ?=ʻ ?!ʻ #B ʻ 0?! ʻ C!8 = ʻ D>ʻ B <ʻ = ʻ B ʻ % == =# ʻ F# = =Aʻ #?ʻ d#B ;#>ʻ !?C; -ʻ #B?C! = ʻ < ;" ʻ ?# #B ʻ /;?@ ! ʻ ʻ > #ʻ B ʻ# " =ʻ =Kʻ !! @#ʻ = ʻ 8 >ʻ C= # ;< = ʻ = ʻ =Aʻ #B ʻ / # # ?= ;ʻ C!8 = ʻ #B ʻ !?;! ʻ 0?! ʻCK?=ʻ #B ʻ @@?C=#ʻ?!ʻB D =Aʻ =ʻB ʻ L # ʻ ; @ ʻ #ʻ #B ʻ# < ʻD?#Bʻ ʻ =ʻ < <D ;ʻ?!ʻ/ ;L 8 < =#ʻ = ʻ?!! @ ;ʻ?!ʻ#B ʻ ;<>ʻ %B ; !?; ʻ ; =Aʻ B ʻ) ; @ ʻ = ʻ B?=?C; D8 ʻ &!# # ʻ 2?8 ʻ ?=! ;ʻ #B ʻ K; < ! ʻ = ʻ @?<< = ʻ #B ʻ / # # ?= ;T#?ʻ B ʻ (@; 9ʻ #>ʻ #B #ʻ B ʻ E?8 ʻ D ʻA; @ ?C 8>ʻ /8 ! ʻ#?ʻ A ʻ#B ʻ / # # ?= ;ʻ!C@Bʻ K ; # ?= ʻ!?;ʻ B ʻ !?; ʻ 0?! ʻ ʻ ʻ =ʻ B ʻ ?> 8ʻ 2 ?<ʻ !B?C8 ʻ#B ="ʻ ! ##ʻ ʻ#B ʻ ʻ / # # ?=ʻ D ; ʻ 2 B @Bʻ ⅈ D =Aʻ CK?=ʻ #B ʻ ʻ = ʻ # ʻ?!ʻ#B ;ʻ K; ! =# ʻ B ; ʻ ʻ = ʻ ?=! ; ʻD>ʻ B ʻ # ʻB ABʻ ?<< ! ?= ;ʻ = ʻ#B ʻ &!# # ʻ?!ʻ / ;8 < =#ʻ#B >ʻ @?<< = ʻ = ʻ B ; D>ʻ @?<< = ʻ#B ʻ / # # ?= ;ʻ#?ʻ B ʻ L #>ʻ!?;ʻ B ʻ K ; # ?=ʻ ?!ʻ B ʻ 0?!# ʻ< =# ?= ʻ =ʻ #B ʻ ! ʻ / # # ?=



?<(

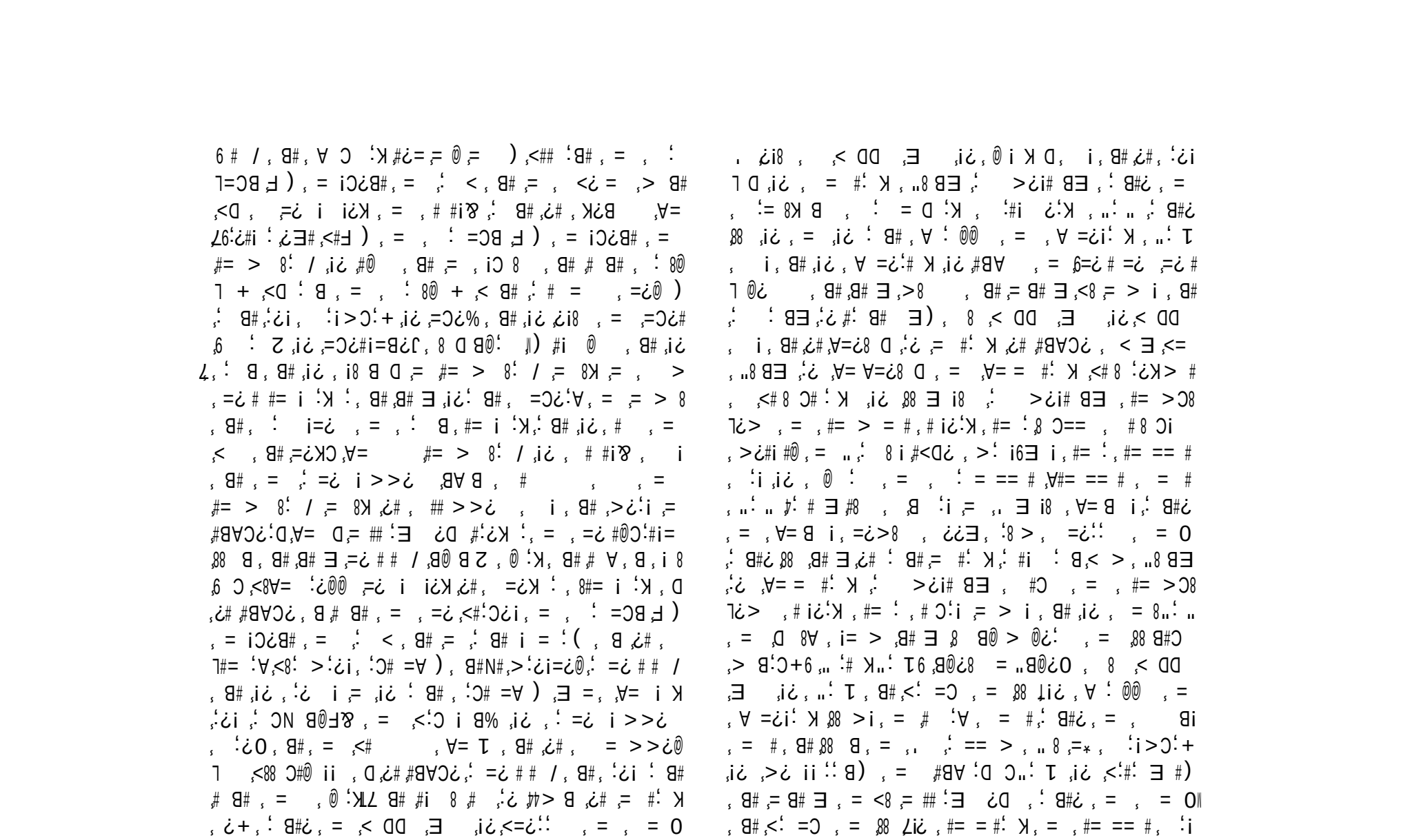


%' &+* ') '%B'(=# =#B' >'?I'JC8>'
= '#B?CI = '(F BC= ; ' = '=>=#>'I ' > ;'
= =#B'/ # # ?=' A =' =' = '<; I =# '#?' B '
); @ ' B ' # 'B AB' ?<< I ?= '; = '#B '
&I# # '?I'/ ;8 < =# D>'J?B=' (K?# E?? ') ; = L
@B 8 '#?' (P ?D ;# (KN# EF'?'?I' E DD >'?< L
< '/; I =# =B' D =A¢CK?=' #B '=>=#B' >'?I'JC8>'
I# ';(@; # :>'?I' (# # '#?' 1 =A' B ;8 '#B'^, -'
(B E =A' #B # EB ; '#B'/ # # ?= ; ' I ')'; = L
I #B ';' B =A'8 EIC88>' @NC ; ' ='#B ' > ';' ='
#B?CI = '(F BC= ; ' = '#E =#>'I?C;'#B' ;9'
;?=>'?I' E DD >' = ' N=# =?E ' ='#B'K?I I9'
?=' #B ;?I'# 88#B'> ';' ='#B?CI = '(F BC= ; '
= '#B;' ##>'I?C;'#K8 I '1 =A' B ;8 '#B'$;I#5T
##B # # < ' ?' =# ';' =#?' =' A; < =# E #B' B '
i ') ; = i #B ';' I?;'#B ' ?I;' ' ;;?=>'#B ' D>'
i# ;8 =A' B ') ; = i #B ';' E ' ?D8 A ' #?' ; I A=¢
i ' @#?' ; I A=' '#B ' I?;I ' ;;?=>' #?' D '
9 $

-4"' . . -7W
523%"7 3"' 31-'0
%7# %7'
62Q"'8+';"6'
31-' 8+#1'
"6' "+3+"6,

ii-4"' . 7%-7@@
523%"7 3"' 31-¢
%7# %7'
62Q"'8+';"6'
"17' :"3,@
A9"'5 27-73
31-' 275';"6
-9' //20

?@"NC # ,D>'O C ; 8 ' # ,#B ,#E =#>' (F#B' ?i' @#?D ;' = ,#B?C8 = ' (F= BC= ; ' = ' (F#>' = #K8 @ ,#?E; ,i?;# 8 @ ' B?CI ,D AA =A ',> ; ' ?;@B> ; ' < 8= ' E?? i i8 =A ' # == =# ,# ==K=g ; ' = ' ; @ ,?i'i; ,# == =# =,?CH ## ' == F ' ??== F ' ‖ K = =@ ' K ;'# K = @8 ' = ' K ;L D #C F#' #B ' i ' K;?@C; #?; ↑#B ' ?< < ## ' i?;g # = =# ' EB #i?< ;' ?i' '' = ' C= ;>' #B ' 8 8 ' i# ;' B =A'@?= ; ?JB ' i / # # ?=;'?ii ;L ' #?' B ' J # ' B AB' ?<< i ?=;' = ,#B ' i 'J?B=;' (K?# 9' E?? ' E #B' #B ' ;' < ## #B ;'?i' = ' #B ' i ; ⇩ E; # ' i?C= ' CK?=;#B ' ;' = ;' = ' K;' i =@ ' ?i' B ' L # ' ?@ #' ; i ' = ' @?=8 ; ' #B ' i < ' #B ?@ ' ?i' ?8 ' K ;'# = ' ?i' 1 ;'' ;;?=>' ?i' E' DD >' E #B' #B ' ?i' ?D ;'# (K?# E?? ' ' #B >' i = ' #B # #B ' i ' (‖ ?D ;'# (K?# E?? ' @NC ; ' #B ' 0 = ' = ' ;;?=>' ?i' E' DD >' E #B' #B ' i ; ⇩ ?#B ;' 0 = ' K ;'# = =# ' # = ' = ' K #;'?= A ' K @ i> ' =' AB#' i;'?<' (‖ [J?B=' (K?# E?? ') =#⇩ < =' ?i' #B ' B <D ;' 2 B @B' 0 K ' = ' ?#B ;' i## ;' K @ i> ' @L NC ; ' i;'?<' #B ' i ' (‖ J?B=' (K?# E?? ' ' i ' ' ; ' i?88?E ' ' 88 = ' B 88 #B *?= i# ;>' K8 @ ' ?i' E' DD >' E #B' 88 = ' C= ;>' B?CI ' D AA =A ' > ; ' ?;@B> ; ' = 8=' <C8#C; ' = ' ?= # ?=' ?i' 8 = ' @ 88 ' C= ;'#B ' E 88 E #B' #B ' K?;'L # ?=' ?i' 8 = ' @ 88 ' ?E8 # ' 8? ' E #B' #B ' K?= A ' ?i' #B ' ?i;'g ‖ ?i' #B ' i < =' E 8'' < 8=' 8> = ' E #B =' #B ' 8 = ' i'



=A#?C= CK ; ?; ?!#B 0 = 8>D 88 C
;A ; # ?C=# ! ?! ?#B = =A#?C=
' #; F ! = NC =?=#?#B ! & ;8 = <
?@"DC;= ?! ;< ! ?C= 0?; JC! @ 8 ;"4 #C#?;
#?#B ! & ;8 !?;#B ;= # ; ! = #B %C#?;
= C; #?; ?!#B ! B; !# = / ; =A8 ! !B
=>B !?;#B ;= # ; !4 = #B ?#B ;%C#?; =
C; #?; ?!#B 8 %B?< & ;8 ?! =AL
#?C= ! B =>?#B ;B !?;#B ;= # ; ! %B
EB @B (C<<?= !?;K;? =A#B # =?; # E
; ! ; @# D>#B KC# ! # ;= =! ;# !;?<+ !K?9
! # ?= @?=# = =A K;?@C; #?; ?! ! A= # ?=
EB @B E ! ;! 8>D 88 #?< K8 K;?@C; #?;>?!
! A= # ?= #?EB @B # E ; ! ; @# !
= < = @@?; =A8> " #B< =# ?= #B #
EB ; #B 9! ?<K8 = ;! = C8> = 8 EL
!C88> =! !# = ! ! = = % = < =# ?! 0 =
E #B #B K ;# = =# 8> =A = #B B ?!#B ?E9
A # ?! & =DC;AB = ;#?#B) ; >!; ; EB @B
!?< # < K ;# = #?J < / ; =A8 8 !# 8 E!C88
?= #?) ?;A / ; =A8 ! ; =# #?%B?< & ;8 4
?! " A#?C= = D>B <K?= #?#B ! +
C88?@B EB?#; = < ## #B ; AB# #B ; L
?! #?#B ! ?<K8 = ;@?=!? <#?B ; *=! !#9
< B# #B ; =# 88 C= ;#B (A= = (CD!@; K# ?=
< =C 8 ?!) ?;A ;C "!B ="?## ;KCD8@"
# #B B>=# >?!J =C ;> = #B?C! = (F
BC= ; (F#> E?> ; = ; A !#; # =#B K ;9
# @B8 ; A # ;?! (!= " K# # & =DC;AB D>
0 (J?B= $?CB CK?= #B (F#B >?! ;@B #B
! > ; >; #C EB ;?! #B ! <K8 = ;
B A?? = ' = ?CD# ; AB# #?#B !?; # = L
< =# ?! 0 = = #?#B E; # = @C; # 4
#B ; ?! A; =# #?B ;= #?B ;K; @ ! ?; ! !
C#B?; = C!! @ =# =# ; ! #?K ;! E #B @# ?=
?! K;? =A #B # =?; C= ;E; ## = = #;C # #
#B # #B K; =@ K 8 K;?@C; #?;>A; =# D>#B 8
J < / ; =A8 #?#B ! + C88?@B E #B
#B B ;# ; ?! A= # ?= A; =# D>#B & ;8
?! =A#?C= #?B <#B ;CK?= ?! #B # = < =#
?! 0 = D? E; ## = = ?! EB @B K;?@C; #?;>
=# D>#B ! J < / ; =A8 #B # =?; !?89
8?E 7

?#B EB @B D =A = 0#B B ;# ; B !# ?! (
%B?< (#C ;# ?! ?8#= ! = =A = #B % = L
< =# K ;# = =A #?B <EB @B 8> = #B 8?!
?KK?! # #?#B ?8 BC;@B !#>8 @ 88 (J <
(#C ;# @8?! # #B !??# #B ;?! CK?= #B E ! 8>
E ; E #B < =>?#B ;E; # D<=# = #B ! B !#
= #B ?= #B ?! K; 8 = #B?C! = (F BC=9 7
; = =>=#> ; 4 = @?=!C< # ! B D>
#B !8 < EB @B DC;=# ?E= = 2 !# #B !
% = < =# = #B ; !?; = @ ! ; # !?;#B ! ?<K8 = ;B ;D ## ; @C; #> = #B !?; # = L
< =# E #B #B K ;# = =# #B # #B # =?; ?! T B

& 1-3-7"+ "6'31- H+%3,'1-+-+-6-++-5 3"' %,'%7,-+3-5 23!-7#31' %7 31- -4"+5

[ )

?(;

?I#B I K;?@C; #?; '#?8 # ?I#B '*=9 i?;< =#*=EB @B# < ' @@?; =A#?#B 'S. I = ;' i#;C< =#*=EB @B# < ' @@?; =A#?#B 'S. I = ;'
#B ; ?=*' '@8 ;' D>'#B I ' ii ; =#'*=i#;C< =#' #B ' ?=' *' '@8 ;' D>'#B I ' ii ; =#'*=i#;C< =#'
= '#B' ?= > =@ 'C=#?'#B 'K ;'#B # #B 'TK;?9 @C; #?;>' ?I' A= # ?=' = ' B ;'# ;' i;?<' #B ' = '#B' ?= > =@ 'C=#?'#B 'K ;'#B # #B 'TK;?9 @C; #?;>' ?I' A= # ?=' = ' B ;'# ;' i;?<' #B '
(CK ; ?;' E ; ' ; 8 ' = '#B # #B ; ' =?' 0A;?CC '#?' CiK @#'#B 'K #@B =A'CK'?I' 'I; C C8 =# ; A8# K @ 8>' =A' =' #B ' I?; 'K;?@ ' ?I'; 9 0<? =A\EB ; =' (\J?B=' 88'@?<K ; 'D?#B'D !' O?; 4 B '= ;' =?#?C;8>'9"=?E=' =' #?' #B ' + L
I?; ' ' 88 ' = ' =' #B ' ?@ # ?=' I?; ' #B ' (CK ; ?;' E ; ' ; 8 ' = ' =' #B ' ?@ # ?=' I?; ' #B ' i = ;' = ' @8 ;8>' K;? =' =' =?#B ';' CD @# EB ; =' #B '= #C;' = ' ; 8 # ' #?' =?#B ';' CD @# EB ; =' #B '= #C;' = ' ; 8 # ' #?' =?#B ';' CD @# EB ; =' + @; # E 'K;?=?C=@ 'D>'#B '/ ;8 < =# =' #B ' *=i#;C< =#' #B '*=i#;C< =#' #B ' K;?@ C0 =A' #B '*

-4" . @
%7-7523%"7
%7 62Q"8+,
"6 2 . -,
8++%-!23-
+"Q".3 "6
R =DC!AB

! ?= < ;' D ! D>' #B <' !?;' B ;!' = B ! ;= 8>' #'! AB#'?!'#B 'O?; '?!'B ' # '!; >' ?#<@ 8 ' D @?< ' #B ' %? =' ?!' & =DC;AB' =' B? ?C;' = ' A; # #C ! ' #?' < 8 ' !?;' B'0 ! ' = ' B?=?! D8 ' !CD! !# =@ ' #?' #B ' / # ! = !' ; ' B ' !! #; 8>' '

D? E; ## =' E ' CK?=' #B ' (; # =#B' >' ?!' JC8>' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' ! ' > ; ' KK!? ;' =' / ;8 < =#' F@8C! '?!' '<?=?9' K?8 ' = ' 88?E =A' =>' EB?' K8 ! '#?' ? =' 2 #B' #! ; ' 0

%' =' ! ?C; ' ?!' 8 F = ;' $;=' &=L A; ;' =' & =DC;AB

)P ' =' ! ?# ; ' ?!' J B; ' ?8< ' %B?< ' 0 B; ;' BJ' 2 88 <' / ;" ')?<! 9' <" ;

' (& *) ' 0 +' ?= ; =A' #B ' A; #'D = ! #'EB @B' @@;C '#?'#B ' # ?='D>'&!8 9' D8 !B =A' ?!' =C! @#?; ' = '#B #' #' ' C!C 8' #?' + @8 ; ' =AC8 ;' = ' =A = ?C ' <K8?>< =#'#?'D ' !?4' = '#?'B '#B '9K; 8 A '#B ; #?'D 8?=A =A9' = '#B !' 8 F = ;7'$;=' K; ! =#' &=A; ;' =' & =DC;AB' B ' D>' <K8?> =A' B ' # < ' !;?<' B ' *=! =@>' =' @@?<K8 #B =A' B <! 8! ' =' B ' ' ;#' C=# '' D>'#B ' D8 ! =A' ?!') ? '?='B 'K =!C88'&=L ?C; ' B ' B ' ## = '#?' C@B' K ;! @# ?=' =' #B ' ! 9?=@ '<C@B' < ; ' = ' =@?C; A ' ;#' ?!' &=A; =A' '#B #' B '@ =' C= ;# " 7'#?' ! ; '#B ' 0 A (' =[#B #' K?>=#' ?!'#B ' ;#' EB @B' '@ 88 ' ! =" =A'?!' (8 ' =' A?8 '! 8 ;' ?;' # 884' #B ;' @C#L # =A'@? #'?!' ;< '= < '@ KB ; 4' ;?A8 KB ?" 4' ?;' @ 4' '=>'?!'#B ' 0 A '@ =' K;?K?! ' ?;' ?; ;' B <' #?' K ;!?;<' !?;'#B <4' DC#' K ;# @C8 ;8>' #B #' K?>=#' ?!'#B ' ;#' > #' <?; ' ! =AC8 ;' 'EB @B' ' @C## =A' ?;' =" =A'#B ' F @#' !! A '3 ' =>' K ;!?=4'

)P ' =' ! ?# ; ' ?!' J B; ' ?8< ' %B?< ' 0 B; ;' BJ' 2 88 <' / ;" ')?<! 9' <" ;

#J ' (%& *) 0 +' D =A' <?!#' E 88 =A' #?' A ' 88' C(' &=@?C; A < =#' #?' '' K ;!?= ' K;?L <?# ; ' ?!' %; ' = ' =C! @#?; ' E #B =' #B ' 1 =A ?<4' = ' #B #' J?B=' ?8< ' %B?< ' 0 B9' ' < =' = ' 2 88 <' / ;"' ?<D< " ; ' ; ' 0 #B4' = ' CAB' 0 ; ?=' =' + 8" #B' B ' A =' A?? ' K;??! 9' = ' FK ; =@ ' ?!' #B ;' !" 88' = ' 8 A =@ ' D' #B ;' ! ' %; ' ?!' <D< " =A' ; ' #B #' #B >' B ' K; @# ! '#B ' ! < ' #B ! ' ! ; 8' > # ' D>K ! 5' E #B' ! 8#B' KK;?D # ?=4' = ' # CAB#' #B ;' K; =# @ '#B <' E #B' !?' <C@B' !C@@ ! 4' #B #' #B >' ; ' =?E' D8 ' #?' !C;= B' #B 'B ;1 =A ?<' 2 #B' 88' !?;# ' ?!') ?<D ' = ' #' ! ;' ; # ' #B =' @ =' D ' <K?;# ' !;?<' D;? ' = ' =A' #B ' ! ' K ;!?= ' = ' ?#B ; ' #B ;' ?K ;#= ; ' B =A' ! #8 ' ' ?>=#' !8?@"' !?;' @ ;> =A' ?='#B ' ! ' %; ' %B ; !?; ' = ' !?;'#B '' =@?C; A < =#' ' #>' 2 #B' @ ' = '@?=9' ! =#' ?!'#B ' &!# # ' ?!' / ;8 < =#') ' = ') ; =#' #?' #B ' 8 ' J?PB=' ?8< ' %B?< ' 0 B< ; ' = ' 2 88 <' / ;"' Q #B ;' K ;#= ; 'K; ! =#' = '#?'@?< ' !C88' K?E ;' Q 8 D ;#>'#?' ?>=' = ' =@?;K?; #' #B < ! 8 ' @@?; =A8>' = ' + @8 ; ' (# #C# ' = '&=9' @# '#B #' #B >' ; ' = '!B 88' D ' '!; ' = ' 8 E!C86' *=@?;K?; # ?=' !?;' @ ;> =A' ?=' #B ' !" ' %; ' ?!' 9 = 8>=A' ?!' 88' !?;# ' ?!' ?<D ' E #B' '' !; ?< ' ; AB# 'K; 8 A ' = ' <<C= # ' ' ; '@?<K # =#' D>' #B ' 0 E ' = ' @# ' < ' =' #B ' / %8 < =#' = '#B?C! = ' (F' BC= ; ' = ' (F#>' ?= ' = ' = ' #B?C! = ' (F' BC= ; ' = ' & AB#>' ?= ' =' ! ?C; ' ?!' =C! @#?; ' = ' 2 88 ' = ' + @8 ; '#B #' #B ' K; 8 A ' #B ; D>' A; =# ' #?' #B ' K ;!?= ' #B ;' !8?@" ' = ' < # ; 8 ' <K8?> ' =' < =C! @#?; 'D ' KK8 '#?' = ' F @C# ' =' ! ?; '?!'#B ' ! 'J?B=' ?8< ' %B?< ' 0 B< =' = ' 2 88 <' / ;"' !?;' #B ;' ! ' %; '?!' ?<D< " =A' = ' K ;# @C8 ;8>' DC#' K; C @ ' ?!' #B ' ! ' A = ; 8 #>' #>' E #B' @ ' = '@?=! =#' !?; ' ?#B' B ; D>' # !>' 0 = ' KK;? '#B ' @#' K !8' ='#B ' ! @?= ' (! ?='?!' #B ' ! ; # / ;8 < =#' ?!' 1 =A' B ;8 '#B ' (@?= ' CK?=' #B '#E =#>' ! ; #' ?!' CAC!8' = '#B?C! = ' (F' BC= ; ' = ' (F#>' #B; ' > ; ' *=# #C8 ' @#' =9' ! ?C; ' ?!' ?<D< " ; ' [(8"E ; ' = ' ?#B ; ' #B ; =' < =# ?= '#?' = ' =' K @ 8' ! ?C; ' ?!' #B ' ! 'J?B=' ?8< ' %B?< ' 0 B< = = ' 2 88 <' / ;"' #B ;' ! 'K ;#= ; ' = '#B #' ='!C ' ! ;' ' #B ' ! < =' @?=@ ;= ' #B ;' ! ' %; ' ?!' ?<D9' < " =A' = ' E #B' = ' C= ;' #B ' K;? ! ?= ' = ' NC 8 ! @ # ?= ' @?=# = ' ='#B ' ! ' #' 2 B @B' @#

D? E; ## =' E ' CK?=' #B ' (; # =#B' >' ?!' JC8>' = ' #B?C! = ' (F' BC= ; ' = ' =>=#>' ! ' > ; ' KK!? ;' =' / ;8 < =#' F@8C! '?!' '<?=?9' K?8 ' = ' 88?E =A' =>' EB?' K8 ! '#?' ? =' 2 #B' #! ; ' 0

%' =' ! ?C; ' ?!' 8 F = ;' $;=' &=L A; ;' =' & =DC;AB

' (& *) ' 0 +' ?= ; =A' #B ' A; #'D = ! #'EB @B' @@;C '#?'#B ' # ?='D>'&!8 9' D8 !B =A' ?!' =C! @#?; ' = '#B #' #' ' C!C 8' #?' + @8 ; ' =AC8 ;' = ' =A = ?C ' <K8?>< =#'#?'D ' !?4' = '#?'B '#B '9K; 8 A '#B ; #?'D 8?=A =A9' = '#B !' 8 F = ;7'$;=' K; ! =#' &=A; ;' =' & =DC;AB' B ' D>' <K8?> =A' B ' # < ' !;?<' B ' *=! =@>' =' @@?<K8 #B =A' B <! 8! ' =' B ' ' ;#' C=# '' D>'#B ' D8 ! =A' ?!') ? '?='B 'K =!C88'&=L ?C; ' B ' B ' ## = '#?' C@B' K ;! @# ?=' =' #B ' ! 9?=@ '<C@B' < ; ' = ' =@?C; A ' ;#' ?!' &=A; =A' '#B #' B '@ =' C= ;# " 7'#?' ! ; '#B ' 0 A (' =[#B #' K?>=#' ?!'#B ' ;#' EB @B' '@ 88 ' ! =" =A'?!' (8 ' =' A?8 '! 8 ;' ?;' # 884' #B ;' @C#L # =A'@? #'?!' ;< '= < '@ KB ; 4' ;?A8 KB ?" 4' ?;' @ 4' '=>'?!'#B ' 0 A '@ =' K;?K?! ' ?;' ?; ;' B <' #?' K ;!?;<' !?;'#B <4' DC#' K ;# @C8 ;8>' #B #' K?>=#' ?!'#B ' ;#' > #' <?; ' ! =AC8 ;' 'EB @B' ' @C## =A' ?;' =" =A'#B ' F @#' !! A '3 ' =>' K ;!?=4'

EB?' K8 ! '#?' ! ##'#B; 'B?< '! ; 88>' EB ; D>' #B ' 0 A ' < >' D ' ! ; ' =' #B #' " = '?!' E?;"' ' A?? ' = ' @B K' = ' <C@B' ! ;' #B =' EB =' #B >' E ; '?D8 A '#?' <K8?>'!!?;; A= ; 4' = ' '' #B ' <?= >' C! '#?' D ' FK?;# ' ?=' #B #' @@?C=#' < >' D ' " K#' =' #B ' ?C=#; >' +?#B' #B ; !?; ' E #B' @ ' = ' @?=! =#' ?!' # 8 ' &!# # '?!' / ;8 94' < =#' &; @#' #B ' ! ' =AC8 ;' = ' =A = ?C ' ;#' ?!' &=A; =A4' =' ' =C! @#?;>' =' ! ?; '?!'#B ' ! ' 8 F = ;' $;=' = ' + @8 ; ' B <' #?' B '#B ' K; 8 A '7?!' # " =A' = ' # @B =A' KK; =# @ '#?' D ' !; ' ?!' E #@B =A' = ' E ; =A' = ' 88' ?#B ;' DC; = '?='#B ' @@?C=#' N!' B '*<K8?>< =#' = ' 88' ?#B ;' K; 8 A ' A; =# ' D>' @#'?!' / ;8 < =#' #?' =C! @#?; 4' ?;' =>' < <D ;' ?;' < <D ; ' #B ; ?!' = ' @?<< = ' B <' #?' #B ' / ; >' ?C=@ 8' !?;' !C;#B ;' &=@?C; A < =#' #?E ; ' #B ' &= D8 =A' B <'#?'D; =A' B '! ' ;#' ?!' =A; =A'#?' K ;! @# ?=' = ' #' '!C;#B ;' + @8 ; '#B #'#B ' @#' *(DC#' K; C @ ' ?!' =>' ?#B ;4EB?' ? ' ?;' 8B 88' K; @#! ' #B ' ! ' *<K8?>< =#

%7' =' ! ?C; ' ?!' 2 88 <' (@?# 'B 'K ;#L = ; '!?;'&; @# =A' C ' (E' 8=' #' 0 #B

(' J&(% ' = '& # # '?!' / ;! < =#' ?=9' .' ; =A' B?E' = @ ! ;>' = ' =# A ?C ' #' E !' K;? ' #?' #B ' # ?=' #B #' #B ; ' D ' =' (E' *8=' &; @# ' =' !?= '@?=!8 ; D8 '87?;#' ?;' B ;D?C;' <?!#' @?= = =#' E8 ;!' A; #' "' #; ' = '?#B ;' A; #

<D ;' < >' D ' D;?CAB#' =' = '8 = ' !;?<' D;? ' !?;' DC 8 =A' ?!' *D K ' = '?#B ;' A; #' E?;" ' =' #B ' # ?=' EB @B' @ =' =?#' =?E' D ' ?= '#B;?CAB' E =#' ?!' *" 88' = ' ;#' ?!' (E =A' C@B' A; #' # <D ;' ' ' K;?K ;' !?;' #B?! ' E?;" ' = ' BD' @?= ; =A' #B #' 2 88 <' (@?#' D = #' " ;'JDC;A ' =' & =DC;AB' J?B=' 8?K' 2 ; AB#' DC;A '#B ; ' = '!?< ' ?#B ; ' ?' E 88 =A8>' ?!! ;' #=' ; @#' = ' (E' 8 ' #' 0 #B' K;?K ;' !?;' #B ' = '!?; ' = 'D =A' ! ;?C ' #?' =@?C; A ' !C@B' KCD8 @"' E?;" ' %B ; !?; ' B ' g' 0' #>' E #B' @ ' = ' @?=8 =#' ?!' #B ' &!# # ' ?!5' / ;8 < =#' +?#B' B ; D>') ' = ') ; =#' !C88' K?E ;' #?7#B ' !?;= < ' K ;!?= ' = ' #B ;' ?K ;#L = ; ' #?' DC 8 ' = ' ; @#' =' #B ' ! ' %?C=' = 'B ;g' B?C;' ?!' 0 #B' =' E = < 8=7' E #B' 88' #B =A ' K ;L # = =A' #B ; C=#?'0!?;' (E =A' K!' 88' < == ;' ?!' # <D ;' = ' #?' ?' 9 ;>' #B =A' ; NC ! #' #B ; = =#' = ' D @ C! ' ?!' #B ' A; #' &FK =! ' ; ' #;?CD8 ' #B >' E 88' D ' #' = 'D; =A =A' B?< '9E?;"< =' = ' < # ; 8 ' K;?K ;' !?;' #B #' C! ' EB @B' @ =' =?#' D ' !C;L = B ' #' B?< ' %B ; !?; ' = ' !?;' #B ;' !C;#B ;' =@?C; A < =#' ?#B' D>' #B ! ' K; ! =#' ') ; =#' = ' 88?E' #?' #B ' !?;= < ' K ;!?= ' #B ;' B ; ' = ' !g' A= '#B ' ?8 ' = '?=8>'K; 8 A '?!' ; @# =A' = ' # " = A' C! 4?!' #B '8 ' (E' 8=' = ' = ?> =A' #B ' B 88' D = ! #' #B ; ?!4!?;' #B ' K @ ' ?!' =>! # ; '> ; ' = 'B ; D>' !@B ;A ' =>' ?#B ;' K ;!?=' ?;' K ;!?= ' EB #!?< ;' !;?<' ; @# =A' ?;' < " =A' ! ' ?!' =>' ?#B ;' (E' 8=' E #B =' #B ' ! ' %?C=' ?!' 0 #B' ?;' =>' ?#B ;' K8 @ ' E #B =' ! !# =' < 8 (' #B ; ?!' = ' #B #' !?;' #B ' K @ ' !?; ' # ;' #B ' # ' B ; ?!' E #B' ;# ! @ # ?=' #?' =>' EB?' ! 88' K; !C< ' #?' ; @#' ' (E' 8=' >; #B =' #B ' # < ' = ' K8 @ ' !?; Y' ' #B ' 8 ' !?;= < ' K ;!?= ' = '#B ;' !?;! ' ' 88 'B ' = ' K ?>' #B ' B '8 D = ! #' = ' K;?! #' #B ; ?!' = ' #B ' K ;!?= ' ; @#?; ' !C;#B ;' KC= 8B ' ' #B ' 0?; ' ?!' B ' # ' / ; >' ?C=@ 8' 88 88' #B ="' ! ##' ; ' @?=< = '#?' 88!?!! @ ; ' ?!' 0 E' EB #L !?< ;' #?' ! ' #B ' K; ! ; #' @#' KC#' =' &F @C# ?=' A =!#' !C@B' 4!8 88' @?=#; =' #B ' ! < =9' =' K; L C @ ' ?!' #B 'P* ' 2 88 <' (@?#' = ' B K ;#= ; ' =N=#' #B ;' K; 8 A 'B ; D>' A; =# '9#?' #B <

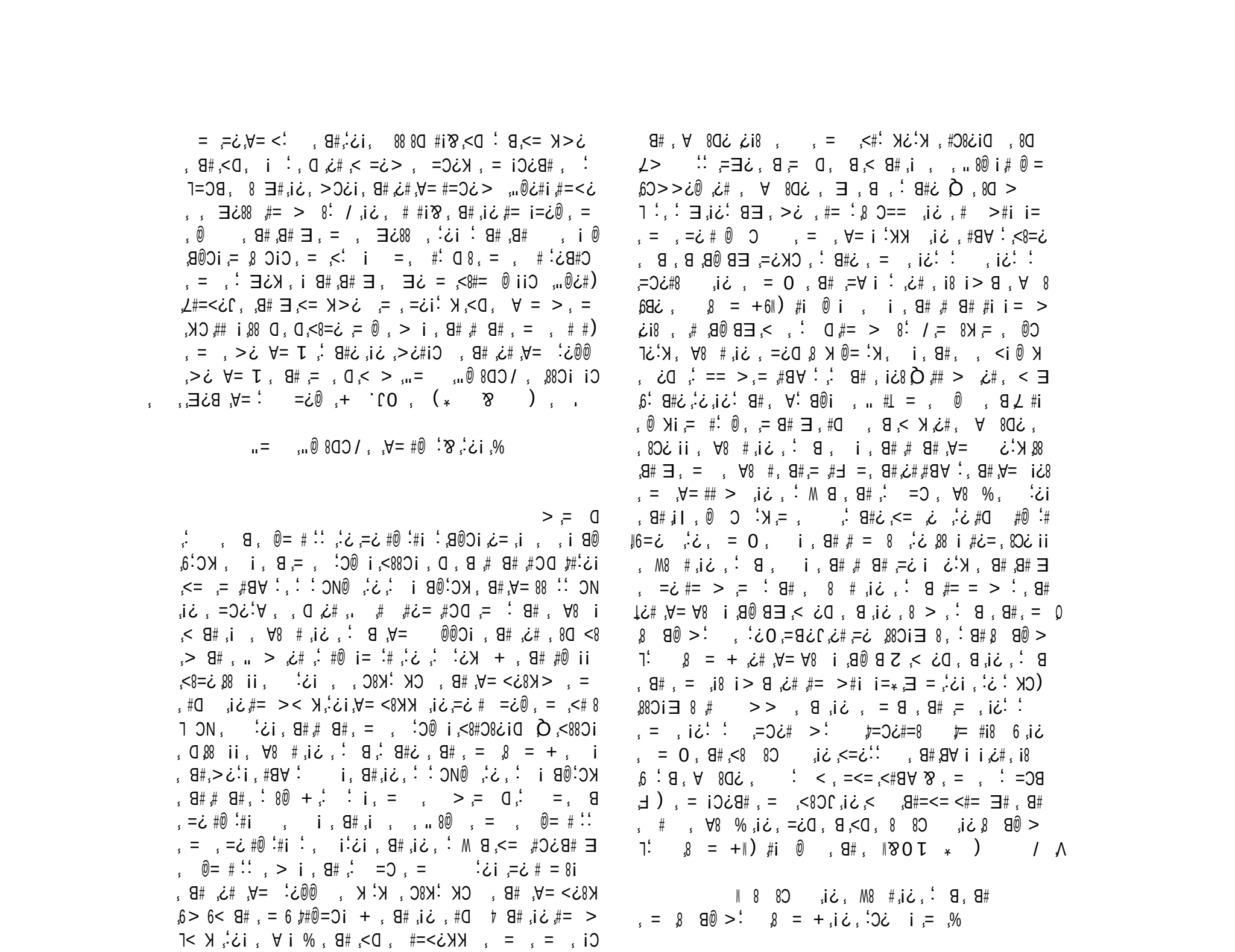
' [%' =' ! ?C; ' ?!' ?D ;#' +?CA8 ' = =#' B ' =C! @#?; ' ?!' (? K4' (BA ;4' Q' (# ;@B' #' 0 #B

U' $ (' ' ' D>' #B ' @#' K!' / ;8 < =#' + = ' #B?C! = ' (F' BC= ; ' = ' (F#>' ?= ' *=# #C8 ' @#' !?;' ; @?C; A =A' (? K' E?;" 4' 88' ?>8 'K?# B ' < ' '?#B ;' < # ; 8 ' ?!' => " = '#?' D ' <K?;# '!?;'#B ' 0C! ' ?!' (? K' E?;" ' !?;' < " =A' ?!' (? K4' = ' '' (? K' < 'E #B =' #B ' ?C=#; >' ; ' + @8 ; ' !; ' ?!' 88' C88?<' = ' F@ ! ' = ' 88' ?#B ;' KCD8 @"' = ']K; #' C ' EB #!? ;' = ' !?' #8 #' 88' (? K' !?' < ' Q' FK?;# '8B 88' D ' !; ' !?;' #B ' K @ ' ?!' =>=# =' > ; ' !# ;' #B ' ! ## =A' CK' ?!' #B ! ' E?;" '[0 " ' D>' #B ' @# ' ?!' / ;8 < =#' = ' #B?C! = ' ' (F' BC= ; ' = ' (F#>' ?= ' = ' = '#B?C8B= ' (F

BC= ; ' = ' & AB# '?= ' ; 8' *< <C= # ' 0 L D ;# ' = ' K; 8 A ' ; ' A; =# '#?' =C! @#?L ; ' !?;' #B ' &=@?C; A < =#' #B ;?!' = ' B ' L #>' = ' #B ' &!# # ' ?!' / ;8 < =#' ?= ; =A' #B #' ?D ;#' +?CA8 ' (? KD?>8 ;' =' 0 #B' B #B' !?;' #B ! ' < =>' > ; ' D =' ' A;T #' K;?<?# ;' ?!' =CL ! @#?; ' = ' K ;# @C8 ;8>' B #B' <C@B' =@ '#B ' =C! @#?;>' ?!' (? K' = ' !?;' #B #' = ' ' <C@B' @?=#; DC#' #?' #B ' ! ## =A' CK' ?!' #B '%; '#?' ;@B9' 7' =A 8' =' C! ' = '#?') ; =8 = ' @B !8>' A= ' #?' D ' =@?C; A ' D>7'#B ! ' @#' ' 8!?' B #B' 8 ' ?C#' ' A; #' K ;#' ?!' B ' !#?@"' =' DC 8 =A' = 'K; L K ; =A' ' (? K' = ' (CA ;' E?;"' EB @B' B ' !# 88' =L # = '#?' K;?! @C# 'E #B' !C;#B ; <K;? < =#' = ' 8 " E > ' #?' ! ##' CK' #E?' ?#B ;' =C! @#?; ' 4' ?= ' !?;' < " =A' ?!' EB # ' = 'K =#' ' ;#B =' 8B 8 ' = 'K?# '@?<<?=8>'@ 88 '8 <' ?!'KC;! 8 =4' = ' =?#B ;' !?;' < " =A' ?!' # ;@B' EB @B' < >' # = ' J?' #B ' A; #' D = ! #' = ' =# A ' ?!' #B ' 8<' %B ; !?; ' B ' #>' E #B' @ ' = ' @?=# =#' ?!' #B ' !?;! ' &!# # ' ?!' / ;8 < =#' + @8 ; ' #B ' 8 ' ?D ;#' &?CA8 'B ' (? K' E?;"' 8; >' #' CK' !?' D ' ' =C! @#?;>7' = ' ?#B' 8!?' ; ' B ' (CA ;' 2?;"' + @8 ; =A' #B ' ! < '#?' D ' ' =C! @L #?;>' ; ' ! ; ;' + ?#B' B ; D>' 88?E' B <' #?' ! #' CK' #B ' !D; ' =C! @#?;>' ?!' < " =A' !# ;@B4' EB # ' = 'K =#' ' ;#B =' K?# ' = ' 8B 8 ' ?;' !@?# 'KC;9' 88 =' @?<<?=8>' @ 88 ' 8 <' E?;"' = ' #B #' #B ' ! ' =C! @#?; ' 8B 88' B ' 88' #B '8 D ;# 'K; L 8 A ' = ' <<C= # ' A; =# 'D>' #B '!?;! ' @#' ' = '#B #' #B '8 ' ?D ;#' +?CA8 ' (CA ;' 9E?;"' 8B 88' B ' 88' #B ' K; 8 A ' = ' F <K# ?= ' A; =# ' #?' #B ' !CA ;' E?;" '?!')8 A?E' K @ 88>' #?' < " ' = ' = ' BC<' #?' #B 'NC =# #>' ?!' ABL # =' %C= '> ;8>' !; '?!' '' C88?<' = ' F@ ! '=?#' #?' D ' < ' C! ' ?!' E #B =' #B ' 1 =A ?<' E #B' ;9' # ! # ?=' #B ;' K; 8 A '?!' #B ' =C! @#?;>P!8 88' D '!?;! C8# ' %B ; !?; ' = ' !?;' #B 'A; # ;' &=L @?C; A < =#' ?!' #B ' =C! @#?; ' !?; ' = ' %; ' #?' ;@B =A 8' =' C! ') ; =8 = ' = ' 0 < ; @ ' *#' ' + @8 ; ' #B #' #B ' K; ! =#' @#' ' #?' #B ' !?;! ' =C! @#?; ' = ' #B ' 8 D ;# ' K; 8 A ' = ' <<C= # ' B ; D>' A; =# ' #?' #B <' 8B 88' ?=# =?E' #?' #B ' ! ' ?D ;#' +?CA8 ' = '0 8!?' =' ! ?; ' ?!' ?D ;#' +?CA8 ' B ' !?= ' = ' #B ;' B ; ' C@@ ! ?; ' = ' K ;#= ; ' !?;' #B ' K @ ' ?!' =>K#' =' > ; ' !;?<' Q' !# ;' 0 <D ' = ' #B?C! = ' (F' BC= ; ' =>=#>' ! ' !?;' #B ' ! ' L =C! @#?;

%' =! ?C; ' ?!' J?B=' ;') ?A; KB ;' = ' K# =' J?B= (8 W ;

' ' (& *) ' 0 +' E #B' ?=! =#' ?!' ' #B ' &!# # ' ?= = ' =' / ;8 < =#' ?= ; =A' 7' #B ' A; #' C! ' = ' = @ ! #>' ?!' F @#' KK ' = ' + @; K# ?= ' ?!' #B ' ? !#' = ' *88 ' ?!' (@?#8 = 4' = ' #B #' D?#B' ?;#B ;=' = ' 2 !# ;=' *88 = ' = '0 8 " E > ' ?=! ; =A' ?E' F=C@B' #B ' ! = B =A'



ʻ ʻ *=;ʻ ʻ !

< = A =Aʻ?!ʻ ʻKCD1@"ʻ ="ʻ = ʻ! ; ;ʻ(# #C# ʻ = ʻ ; = ʻ E #Bʻ @ ʻ!?; ʻ #B #ʻ #B ʻ K ;!?= ʻ C= ;ʻ = < ʻ ʻ Pʻ 2 8ʻ <ʻ &;8" =ʻ !?=ʻ #?ʻ #B ʻ 0?; ʻ ; ;?! 4ʻ (PJ?B=ʻ (E =#?=ʻ ?!ʻ#B #ʻ *8"ʻ (Pʻ ?L D ;#ʻ + @"!?=ʻ ?!ʻ (?;=D Aʻ b ʻ) ?;Aʻ 8 ;"ʻ C= ?;ʻ = ʻ Iʻ J?B=ʻ 2 #!?=ʻ ;@B =#ʻ =ʻ& =DC;ABʻ Iʻ J < ʻ $?C8 ʻ Iʻ J?B=ʻ ?8ʻ = ʻ + ʻ ;=ʻ 2 8# ;ʻ(#C ;#4ʻ CABʻ $; W ;4ʻ Iʻ %B?< ʻ ?C# ʻ = ʻ Iʻ %B?< ʻ + = ʻ ;@B =# Iʻ =ʻ 0?=L ?=ʻ?;ʻ =>ʻ#B; ʻ?!ʻ#B <ʻ = ʻ =ʻ@ !ʻ?!ʻ#B ʻ @ ʻ ?!ʻ =>ʻ ?!ʻ#B <ʻ #B ʻ K ;!?= #?ʻ D ʻ @B? ! =ʻ D>ʻ#B ʻ C; ;ʻ !8 8ʻ B ʻ K?E ;ʻ#?ʻ KK?>=# ʻ ??"ʻ!?;ʻ (CD!@; K# ?= ʻ ?!ʻ K ;!?= ʻ #B ;ʻ # ʻ ?;ʻ $?;9ʻ ; A= ; ʻ EB?ʻ !8 8ʻ D ʻ E 8 =Aʻ#?ʻ (CD!@; D ʻ = ʻ K >ʻ =ʻ#?ʻ#B ʻ ?>=# !#? "ʻ 2 B @Bʻ (CD!@; K# ?= ʻ #B ʻ!?;9ʻ ! ʻ K ;!?= ʻ ?;ʻ #B ;ʻ NC?;C<ʻ ; ʻ B ; D>ʻ C#B?L ; W Iʻ#?ʻ; @ ʻ =ʻ#B ʻ!?; ʻ D??"ʻ EB @Bʻ !8 8ʻ 8>ʻ ?K =ʻ ;>ʻ#C >ʻ?;ʻ!!; >ʻ!;?<ʻ = = ʻ#?ʻ#E 8 9ʻ =ʻ#B ʻ!?; =??B4ʻ = ʻ!;?<ʻ#B; ʻ#?ʻ Fʻ =ʻ#B ʻ !# ;L =??=ʻ D #C F# #B ʻ ! ;!# >ʻ?!ʻ ? <D ;ʻ = F# = ʻ #B ʻ ! ;!# >ʻ ?!ʻ J =C ;>ʻ = F# !?88?E =Aʻ =ʻ #B ʻ KCD8 @"ʻ 8ʻ?;ʻ B <D ;ʻ#?ʻ D ʻ KK?>=# ʻ =ʻ #B ʻ #>ʻ ?!ʻ& =DC;ABʻ = ʻ#B ; =ʻ 8ʻ K ;!?= ʻ 8B 8ʻ B ʻ8 D ;#>ʻ#?ʻ (CD!@; D ʻ!?;I C@Bʻ!?C< ʻ?!ʻ<?= >ʻ ʻ#B >ʻ!B 8ʻ#B ="ʻ! ##ʻ#?ʻ =#C; ʻ =ʻ#B ʻ ʻ ?>= ʻ !#? "ʻ?= ʻ#B?C! = ʻ K?C= ʻ (@?# ʻ D =Aʻ #B ʻ 8?E !# !?C< ʻ = ʻ#E =#>ʻ#B?C! = ʻK?C= ʻ (@?# ʻ#B ʻB AB !# = ʻ#B ʻ#E?ʻ#B ; ʻ K ;# ʻ?!ʻ#B ʻ! ʻ!#?@" ʻD 8?=AL =Aʻ 8 ! ʻ #?ʻ K ;!?= ʻ ; ! =Aʻ =ʻ(@?#8 = ʻ 0 " ʻ 0 @Bʻ = ʻ ;>ʻK ;!?=ʻ #ʻ#B ʻ# < ʻ?!ʻB ʻ(CD! ; D =Aʻ ʻ 8B 8ʻK >ʻ =ʻ#?ʻ#B ʻ B = ʻ?!ʻ#B ʻ!?;= < ʻK ;!?= ʻ?;ʻ =>ʻ#B; ʻ?!ʻ#B <ʻ % =ʻ?!ʻ#B ʻBC= ; ʻ?!ʻ#B ʻ!C< ʻ ! ##ʻ ?C=ʻ =ʻ#B ;ʻ; K @# ʻ (CD!@; K# ?= ʻ #?E ; ʻ #B ʻ ;> =Aʻ?=ʻ#B ʻ ="† = ʻ 8#ʻ = ʻ ;>ʻ #B ʻ K ;!?= ʻ (CD! ; D =Aʻ = ʻK > =Aʻ =ʻ#?ʻ#B ʻ ! ʻ!#? "ʻ ʻ !?; ʻ !8 8ʻ D ʻ = ʻ ; ʻ B ; D>ʻ + @8 ; ʻ #?ʻ D ʻ ?= ʻ ? >ʻ ?;K?; #ʻ = ʻ/?8 # NC ʻ D>ʻ#B ʻ = < ʻ ?!ʻ % &ʻ) & #% ʻ +7ʻ / ʻ $ʻ % &ʻ 1ʻ $ʻ (% +ʻC= ;ʻ EB @Bʻ < ʻ #B >ʻ !B 'ʻ B ʻ K ;K #C 8ʻ (C@@ ! ?=ʻ = ʻ !8 8ʻ B ʻ ʻ ?<<?=ʻ (8ʻ = ʻ#B ;ʻ (C@@ ! ?; ʻ D>ʻ #B ʻ= < ʻ!?; ʻ!8 8ʻ D ʻ D8 ʻ = ʻ@ K D8 ʻ#?ʻKC;L @B ʻ = ʻ = ?>ʻ ʻ 8!?ʻ #?ʻ A ʻ A; =#9 8 = #ʻ = ʻ !K?! ʻ?!ʻ O = ʻ# = < =# ʻ = ʻ 'ʻ ?#B ;ʻ B ; # A ʻ ʻ8 " E ! ʻ?!ʻ 8ʻ (C< ʻ?!ʻ<?= >ʻ = ʻ?#B ;ʻ= ? 9ʻ Ô D8 ʻA?? ʻ = ʻA ;ʻEB # ?< ;ʻ = ʻ! ; ;ʻ#?ʻ ?ʻ = ʻ&F @C#ʻ 8ʻ?#B ;ʻ#B =A ʻ EB @Bʻ =>ʻ?#B ;ʻ ?<L K Nʻ?;ʻD? >ʻ ?;K?; #ʻ @ =ʻ?;ʻ< >ʻ8 E!C88>ʻ ? ʻ?;ʻ &F @C#ʻ = ʻ#B #ʻ ʻ <K8 ʻ = ʻ!C88>ʻ ʻ !ʻ#B ʻ L ; 8ʻ < ## ; ʻ = ʻ #B =A ʻ E ; ʻ K ;# @C8 ;8>ʻ! ##ʻ ?C=ʻ =ʻ#B ʻ @#ʻ = ʻ!?;ʻ#B ʻ D ## ;ʻ ?; ; =Aʻ = ʻ < L = A =Aʻ?!ʻ#B ʻ !! ; ʻ?!ʻ#B ʻ ʻ ="ʻ #9 ʻ B ; D>ʻ ! ; ;ʻ(# #C# ʻ = ʻ ; = ʻ#B #ʻ#B ; ʻ8B 8ʻD ʻ!?;9ʻ ;ʻ ʻ) ? ;=?=;4ʻ + KC#>ʻ) ? <?C;ʻ = ʻ#E =#>ʻ ʻ !?C;ʻ + ; @#?; ʻ #?ʻ D ʻ &8 @# ʻ = ʻ B? ! =ʻ ʻ B ; L !# ;ʻ KK?>=# 4ʻ EB?ʻ ?;ʻ =>ʻ ! =ʻ?!ʻ#B <ʻ B ; L D>ʻ + @8 ; ʻ #?ʻ D ʻ %ʻ NC?;C<ʻ !8 'ʻ B ʻ#B ʻ < L = A < =# = ʻ + ; @# ?=ʻ ?!ʻ #B ʻ ʻ ="ʻ EB @Bʻ K ;!?= ʻ ʻ) ? <?C;4ʻ + KC#>ʻ) ? ;=?C;ʻ = ʻ #E =#>ʻ !?C!ʻ + ; @#?; ʻ ; ʻ #?ʻ D ʻ @B? ! =ʻ =ʻ #B

< == ;ʻ ʻ #B #ʻ E #B =ʻ #B ʻ #B; ʻ9 ?= #B ʻ !# !ʻ #B ʻ!?; ʻ (CD!@; K# ?= ʻ ; ʻ = ʻ#B ʻK ;!?= ʻK ;97ʻ # @C8 ;8>ʻ D? ʻ = < ʻ7?;ʻ =>ʻ #E?ʻ ?!ʻ #B <ʻ !8 8ʻ KK?>=#ʻ @ ;# =ʻ >ʻ = ʻ < " ʻ C ʻ =# < # ?=ʻ?!ʻ #B ʻ ! < 4ʻ #B #ʻ !C@Bʻ = ʻ !?ʻ < =>ʻ?!ʻ #B ʻ =L #C; ; ʻ = ʻ=?= ʻ ?#B ;ʻ ʻ 8B 8ʻ @Bʻ?!ʻ #B B ʻ B ʻ (CD! ; D ʻ!?;ʻ = ʻ#B?C! = ʻK?C= ʻ<?= >ʻ?;ʻ CK ʻ E ; ʻ =ʻ#B ʻ ! ʻ ??"ʻ?!ʻ#B ʻ ?>=#!#? "ʻ < >ʻ 8 @# = ʻ@B??! ʻ D>ʻ ?; #>ʻ?!ʻ ?# ʻ EB @Bʻ ; ʻ #?ʻ DK A =ʻ ?= ʻ ?# ʻ!?;ʻ ;>ʻ#B?C! = ʻK?C= ʻ*B ; ʻ =ʻ #B ʻ!#? "ʻ ʻ! ##ʻK ;!?=ʻ?!ʻ#B ʻ (CD! ; D ; ʻ EB?ʻ B #B9ʻ (CD! ; D ʻ!?;ʻB <! 8! ʻ #ʻ8 !#!?;ʻ& AB#ʻ%B?C! = ʻ /?C= ʻ #?ʻ D ʻ)? ;=?C;ʻ?! #B ʻ ʻ ="ʻ = ʻ =?#B ;4ʻ! ##ʻ K ;!?=ʻ?!ʻ#B ʻ (CD! ; D ; ʻ EB?ʻ 8B 8ʻ B ʻ(CD! ; D ʻ!?;ʻB < 8! ʻ #ʻ8 !#!?;ʻ(Fʻ%B?CL ! = ʻK?C= ʻ #?ʻ D ʻ + KC#>ʻ)? ;=?;ʻ?!ʻ#B ʻ ! ʻ ="ʻ = ʻ 8!?ʻ#E =#>ʻ!?C;ʻ ?#B ;ʻ! ##ʻK ;!?= ʻ EB?ʻ !8 8ʻ B ʻ!CD!@; D ʻ @Bʻ?!ʻ#B <ʻ !?;ʻ B < 8! ʻ #ʻ 8 !#!?;ʻ%B; ʻ#B?C! = ʻK?C= ʻ =ʻ#B ʻ! ʻ ?>=#ʻ !#? "ʻ #?ʻ D ʻ + ; @#?; ʻ?!ʻ#B ʻ! ʻ ="ʻ 2 B @Bʻ)? ;=?;ʻ+ KC#>ʻ ? ;=?C;ʻ = ʻ+ ; @#?; ʻ ; ʻ#?ʻ @?=# =?Eʻ =ʻ#B ;ʻ; K @# ʻ?!! @ ʻC=# 8ʻ#B ʻ= F#ʻ &8 @# ?=ʻ ?!ʻ#B ;ʻ (C@@ ! ?; ʻ EB @Bʻ= F#ʻJ&8 @# ?=ʻ 8B 8ʻ D ʻ < ʻ E #B =ʻ #B; ##>ʻ > ʻ !# ;ʻ#B ʻ F9ʻ Iʻ K ; # ?=ʻ ?!ʻ =ʻEB?8 ʻ > ;ʻ !;?<ʻ#B ʻ !?;< ;ʻ &8 @L # ?=ʻ D>ʻ#B ʻ < ?; #>ʻ?!ʻ! ʻ ?# ʻ ?!ʻ#B ʻ <D ; ʻ EB?9ʻ ; ʻ #?ʻ D ʻNC 8 !> ʻ = ʻ#B ;ʻ ?# ʻ ; @"?= ʻ =ʻ< == ;ʻ D? ʻ< =# ?= ʻ =L ?#B ;ʻ! ##ʻK ;!?=ʻ =ʻ#B ʻ ;?C<ʻ = ʻ#?ʻ#B ʻ ?!! @ ʻ ?!ʻ #B ʻ @ ! ʻEB?ʻ [#?ʻ?!8! @ #ʻ!?;ʻ#B ʻ ; < = ;ʻ?!ʻ B ʻ# < ʻ = ʻ! ; ;ʻ#B ʻ) ? ;=?C;ʻ?;ʻ B ʻ + KC#>ʻ = ʻ =>ʻ#B; ʻ ?!ʻ#B ʻ + ; @#?; 4ʻ?;ʻ =>ʻ! ʻ ?!4ʻ#B ʻ + ; @#?; ʻ E #B?C#ʻ #B ʻ) ? ;=?C;ʻ?;ʻ B ʻ + KC#>ʻ < >ʻ 8! ʻ ?!# =ʻ ʻ#B >ʻ8B 8ʻ ! ʻ @ C! ʻ (C< <?= ʻ ʻ # =Aʻ ?!ʻ#B ʻ =#C; ; ʻ NC 8 !>ʻ ʻ ʻ ! ʻ 9ʻ #ʻ EB @Bʻ < # =Aʻ D>ʻ < ?; #>ʻ?!ʻ ?# ʻ#?ʻ D ʻ A =9ʻ ʻ ! ʻ ʻ#B ʻ) ? ;=?C;ʻ ?;ʻ B ʻ + KC#>ʻ ?;ʻ =>ʻ ?!ʻ #B ʻ + ; @#?; ʻ !?;ʻ #B ʻ # < ʻ =?#ʻ F@ =Aʻ #E?7ʻ + ; @#?; ʻ # ?= ʻ < # =Aʻ < >ʻ D ʻ K8 @ ʻ = ʻ; L <? ʻ !?;ʻ =>ʻ < ! @ ; A ʻ ?;ʻ = C!! @ =@>ʻ =ʻ B ʻ ?!! @ ʻ %?ʻ EB @Bʻ (=# =@ ʻ #B ʻ K ;!?=ʻ ; <? ʻ ʻ D!?8C# 8>ʻ#?ʻ @NC ! ʻE #B?C#ʻ A =! > =Aʻ = ʻ =L ?#B ;ʻ#?ʻD ʻ@B? ! =ʻ =ʻ B ʻ ;?C<ʻ = 7ʻK8 @ ʻ ʻ !?;L ʻ#?ʻ @?=# =?Eʻ #; 'ʻ #B ʻ = F#ʻ) = ; 8ʻ &8 @# ?=44ʻ = ʻ#B ʻ) ? ;=?C;ʻ + KC#>T) ? ;=?C;ʻ + ; @#?; 9ʻ ?;ʻ =>ʻ (=ʻ ?!ʻ#B <ʻ #B ;ʻ 3C?;C<ʻ !?; ʻ< >ʻ < #ʻ #?A #B ;ʻ #ʻ =>ʻ @?= = =#ʻ K8 @ ʻ !?;ʻ #B ʻ < = A < =#ʻ ?!ʻ#B ʻ !! ; ʻ?!ʻ#B ʻ! ʻ ="ʻ = ʻ #B ʻ! ʻ =#C; ; ʻ #ʻ =>ʻA = ; 8ʻ < #=Aʻ #B #ʻ *B 'ʻ B KK =ʻ #?ʻ D ʻ KK?>=# ʻ !B 'ʻ B ʻK?E ;ʻ#?ʻ ; NC ; ʻ #B ʻ K >< =#ʻ ?!ʻ =>ʻ !C;#B ;ʻ K ;#ʻ ?!ʻ #B ʻ !CD! ; K# ?= ʻ #B =ʻ #B ʻ # =ʻ K ;ʻ =#4ʻ D? ʻ < =L # ?= ʻ #ʻ !C@Bʻ# < ʻ ʻ #B >ʻ !8 8ʻ#B ="ʻ ! ##ʻ = ʻ =ʻ @ ! ʻ =>ʻ?!ʻ#B ʻ =#C; ; ʻ !8 'ʻ; !C! ʻ?;ʻ= A8 @#ʻ #?ʻ K >ʻ =ʻ #B ;ʻ K;?K?;# ?=ʻ KK?>=# ʻ D>ʻ#B ʻ 8 ʻ

?=*

M $ " < # =A# #B =' B '#B ## i?;i C8# #?' # 'Ci ∦ iC@B'K = 8# ' 'iB ##D '#B ; ='@?=# = '/';? L
='DI B?' '?i'#B 'i ' ?>=#i#?@"'EB # ';'B 'B '
=A'#B '#B 'i ' >'0 E ' ='?; = =@ 'D '=?#
@?=#; ;>'#?#DC# @?=i i# =# E #B'#B '0 E ' ?i'#B '
1 =A ?<' = 'i?;' i@ ;'# = =A'B?E'#B 'i ' ?>='#
= '#B ' C; =A'#B ' (K @ ' #?' D 8?=A'< >'D ' i ##'CK' = '
?;'?#B ;'&i# # '#B ; #?' D 8?=A'< >'D ' i ∦
?;' #; = i ;; '*#' 'B ; D>' (# #C# ' = ' ; = '
#B '#B ; 'D '@?=i# =#8>" K ' ??"?;' A i# ;'
D>'#B 'i ')? ;='C;' = '+ ; @#?;'EB ; '##B '
i?; ' A=< =#'iB ## B ' =# ; ' 'iCDi@; D?
D ## D>'#B '#E =# #B' @#' / ;8 < =# = '#B?C9
ô i = ' (F BC= ; ' = '& AB#>'?= '1 =A' B ;8 '
#B ' (@?= ' = ' @8 " '#B ## =?' (C K =8 ?=' K i '
' ' KK?>=# '#?'K i ' CK?=' K;?# i#'?i'ii?% A=
< ' = ' K;?# i#'#B ; ?=' =' #B 'i < ' < ==';
D i ' 'iB ## D '#B ; ='@?=' ' ==' E #B =' #B ' 1 =A' ?<#
D i ' '#B i 'K ;i?=' ' == ;8>' =' EB?i 'i ?;'
#B ' @#' 'A; =# ' = ' @8 " ' # ' B ; D>'+ L
@8 ; ' #B # iC<< ';' &F @C# ?=' D>' B?;= =A' i8 ##
K;?@ 'CK?=' ## '9% @NC # ' ; E=' CK?=' ?;'
A; =# 'D>¢?;'#?' = '=' i ?C;'?i'#B ' =" = '
#B ' = A ;' = ' < =i#; #?; '?i'#B ; B ; D>' + L
EB?<'#B 'i A=< =# '< ' =' ?"=' ?i'B ' @L
@ K# =@ ' = '#B # iC@B' i AK< =# i?' (CDi@; D '
iB ## < " 'iC## @?<K8 # = ' DI?8C# '; AB#' = '
?' #B ';'iB ## D 'A??' F@ K# =A'#B # =>'K ;i?;#
B =A' =# ; i# =' #B 'i ' ?<K =>' ?i' #B ' ="' ?i'
i?88?E =A' *' ' 9[+?' (E ;' #B # #B 'iC<‖<' ?i
?i' #B ' (#?@"' ?i
#B ')? ;='C;' = ' ?<K =>' ?i' #B ' ="' ?i'
(@?#8 = ' ?#B' # #B ' ?<' D 8?=A' #?' < ' =' <>'
?E=' ; AB#' = ' =?#' =' #;C1#' = '#B # =' #B '?ii @ '
'i8 ##D ' ' 8 ' = '@?<K8 #';=i< i ?=' =' i ?;'
?i' *' E ##D ' NC 8#?' ##K ;9
i?=' = ' A ';' >'B i#' @ 'i?;' #B ' (CKK?;'# ?i'
#B ' @?#8 = ' =''?i' (@?#8 = ' = ' =' #B ' i ' ?ii @ 'B?= i#8>'
< =' <> 8i 'i' ?#' #B ' B i# ?i' <>'i" ## = '#B '
I #B#B ;i#')? ;='C;' i8 ## " 'D i?; '#B '0?; '
B =@ 8?C;' ?;' =>'?#B ;' ?i' #B ' ii @ ;' ?i' (# # '
=?C;' + K C#>' = ' + ; @#?; ' < = i#; # #B ' i < '
#?' B ' + K C#>' = ' + ; @#?; ' = ' F#')? ;L
C=8 i '#B >'B '#B';' ik @# 'iC<< ' D? ' < 89'
# ?= ' ='#B B ?E=' ; AB#' = 'i? 8?=A' '#B >'B '
#B ' i < ' = '=? 8?=A ;' C#' CK?='#B ' < =C# ?='
'#B ' i 'iC<< '#B ';' ?ii @ ' ; '#?' # ;'< = '
= ' ?#B ;' #?' D '@B? i =' #') = ; 8 < # =A' '
4 i?; ' =' #B ;' K8 @ ' = '#B ' i ')? ;='C;'
+ K C#>')? ;='C;' = ' + ; @#?;' ; ' #?' iE ;'∦
# #B ;' =#; '#?' #B ;' ; K @# ' ?ii @ '#B '? #B'
@ K# =@ ' = '#B # iC@B' i AK< =# i?' (CDi@; D '
iB ## < " 'iC## @?<K8 # = ' DI?8C# '; AB#' = '
=?' ?#B ';' iB ## D 'A??' F@ K# =A'#B # =>'K ;i?;#
B =A' =# ; i# =' #B ' i ' ?<K =>' ?i' #B ' ="' ?i'
?i' #B ' ?<' D 8?=A' #?' < ' =' <>' ?i' #B '
?i' #B ' K ;i?=' #?' EB?<' #B ' K?i '?>=# i#?@"' = '
?=' #B ' =# ; =A' = '; @?; =A' iA' <C@B' ?i'#B ' i '
0 ## ';' 2 i 4 ' ; 8 # '#?'#B ' i ' i#?@"∦=' #B 'D??" '
= T7i8 ; ' < >'?=8>'9D' @?= > ' = '#; =i< ## '
+ @@ ; 9 #B # #B ' iC< '?i'#B ' i?;i '(CDi@; K# ?='
?<K =>' @?=#; ';' #?' #B ' i A=' J‖ ?i' *#' 'B ; D>'
=# =A' #B ' ; " =A' ?i' #B ' i ' ?>=#i#?@"' = '
?i' #B ') ? ;='C;' = ' ?<K =>' ?i' #B ' ="' ?i'
(@?#8 = ' ?#B' # #B ' ?<' D 8?=A' #?' < ' =' <>'
?E=' ; AB#' = ' =?#' =' #;C1#' = '#B # =' #B '?ii @ '
'i8 ##D ' ' 8 ' = '@?<K8 #';=i< i ?=' =' i ?;'
?i' *' E ##D ' NC 8#?' ##K ;9
?i' #B ' (#?@"' ?i
#B ')? ;='C;' = ' ?<K =>' ?i' #B ' ="' ?i'
(@?#8 = ' ?#B' # #B ' ?<' D 8?=A' #?' < ' =' <>'
?E=' ; AB#' = ' =?#' =' #;C1#' = '#B # =' #B '?ii @ '
'i8 ##D ' ' 8 ' = '@?<K8 #';=i< i ?=' =' i ?;'
?i' *' E ##D ' NC 8#?' ##K ;9
i?88?E =A' *' ' 9[+?' (E ;' #B # #B ' iC<‖<' ?i
?i' #B ' (#?@"' ?i
#B ')? ;='C;' = ' ?<K =>' ?i' #B ' ="' ?i'
(@?#8 = ' ?#B' # #B ' ?<' D 8?=A' #?' < ' =' <>'
?E=' ; AB#' = ' =?#' =' #;C1#' = '#B # =' #B '?ii @ '
'i8 ##D ' ' 8 ' = '@?<K8 #';=i< i ?=' =' i ?;'
?i' *' E ##D ' NC 8#?' ##K ;9
i?=' = ' A ';' >'B i#' @ 'i?;' #B ' (CKK?;'# ?i'
#B ' @?#8 = ' =''?i' (@?#8 = ' = ' =' #B ' i ' ?ii @ 'B?= i#8>'
< =' <> 8i 'i' ?#' #B ' B i# ?i' <>'i" ## = '#B '
I #B#B ;i#')? ;='C;' i8 ## " 'D i?; '#B '0?; '
B =@ 8?C;' ?;' =>'?#B ;' ?i' #B ' ii @ ;' ?i' (# # '
=?C;' + K C#>' = ' + ; @#?; ' < = i#; # #B ' i < '
#?' B ' + K C#>' = ' + ; @#?; ' = ' F#')? ;L
C=8 i '#B >'B '#B';' ik @# 'iC<< ' D? ' < 89'
# ?= ' ='#B B ?E=' ; AB#' = 'i? 8?=A' '#B >'B '
#B ' i < ' = '=? 8?=A ;' C#' CK?='#B ' < =C# ?='
'#B ' i 'iC<< '#B ';' ?ii @ ' ; '#?' # ;'< = '
= ' ?#B ;' #?' D '@B? i =' #') = ; 8 < # =A' '
4 i?; ' =' #B ;' K8 @ ' = '#B ' i ')? ;='C;'
+ K C#>')? ;='C;' = ' + ; @#?;' ; ' #?' iE ;'∦
# #B ;' =#; '#?' #B ;' ; K @# ' ?ii @ '#B '? #B'
@ K# =@ ' = '#B # iC@B' i AK< =# i?' (CDi@; D '
iB ## < " 'iC## @?<K8 # = ' DI?8C# '; AB#' = '
=?' ?#B ';' iB ## D 'A??' F@ K# =A'#B # =>'K ;i?;#
B =A' =# ; i# =' #B ' i ' ?<K =>' ?i' #B ' ="' ?i'
?i' #B ' ?<' D 8?=A' #?' < ' =' <>' ?i' #B '
?i' #B ' K ;i?=' #?' EB?<' #B ' K?i '?>=# i#?@"' = '
?=' #B ' =# ; =A' = '; @?; =A' iA' <C@B' ?i'#B ' i '
0 ## ';' 2 i 4 ' ; 8 # '#?'#B ' i ' i#?@"∦=' #B 'D??" '
= T7i8 ; ' < >'?=8>'9D' @?= > ' = '#; =i< ## '
+ @@ ; 9 #B # #B ' iC< '?i'#B ' i?;i '(CDi@; K# ?='
?<K =>' @?=#; ';' #?' #B ' i A=' J‖ ?i' *#' 'B ; D>'
=# =A' #B ' ; " =A' ?i' #B ' i ' ?>=#i#?@"' = '
?i' #B ') ? ;='C;' = ' ?<K =>' ?i' #B ' ="' ?i'
(@?#8 = ' ?#B' # #B ' ?<' D 8?=A' #?' < ' =' <>'
?E=' ; AB#' = ' =?#' =' #;C1#' = '#B # =' #B '?ii @ '
'i8 ##D ' ' 8 ' = '@?<K8 #';=i< i ?=' =' i ?;'
?i' *' E ##D ' NC 8#?' ##K ;9

!8?@"' =?;' K ;@ 88 ' <?=A!8' <?; ' K ;!?= ' D>' 8 A 8'
8 A =@ ' =' =>' ?!# #?' #B ' < = !8 =A' ?;' !#C;D9' ||
=A' #B ' !8?@"' ?!' #B ' ! ' ? =K =>' = ' A?? ' ?; ;'
#B ; ?!' = ' @8 " ' !?;' #B ' A; # ;' ! C; #> ' = '
<?; ' @?= = =#' < = A =A' ?!' #B ' ! ' D ="' ?;'
?>=#' !8?@"' *#' ' B ; D ;' (# #C# ' = ' ; = '#B #'
=' @ ! ' #' !B 88' B KK =' =>' ?!' #B ' * * <D ; ' K ;#9;'
= ; ' ?;' (CD!@; D ; ' ?;' ?#B ;' K!?K; # ; ' ?!' =>' K ;#'
?!' #B ' ! ||!#?@ || #?' D ' ; A !#; #' #' #B ' B?;=' ?;' #?'
@?=< ##' =>' @; < ' KC= B D8 ' D>' ?=! !@ # ?=' ?;'
!?;! C8#C; ' ?!' B ' ! ' !# ; ' = ' K;?K?;# ?=' ?!' #B '
' ?>=#' !8?@"' = ' K;?! #' #B ;?!' C ' #' #B ' # < '
#B =' = ' =' #B #' ||@ ! ' #' !B 88' D ' 8 E!C86' !?;' #B '
) ;=?C;4' + KC#>') ? ;=?C;' = ' + ; @#?; ' ?;'
#B ;' 3C?;C<' !?; ' #?' FK?! ' D>' KED8 @"' ;?CK'
!C@B' !B ; ' = ' K;?! # ' #B ; ?!' #?' =>' ?#B ;' K ;! ='
EB?' !B 88' D ' #B ' B AB !8' K; @ ' #B ; !?; ' !# ;' C@B' 0
8 A 8' =# < # ?= ' #?' D ' < ' !?;' #B #' !! @#' D>' #B '
! ') ? ;=?C;4' + KC#>') ? ;=?C;' + ; @#?; ' ?;'
#B ;' NC?;C<' ' ' K; !@; D ' D>' #B ' @#' ?!' / ;L
8 < =#' !?;' #B ' ! 8 ' ?!' ="';CK#' 0 = ' = ' #B T
K; @ ' ; ! =A' D>' #B ' ! ' ;?CK' #?' D ' < ' !C;#BL
@?< =A' D>' #B ' ! ' ?<K =>' #?|| #B ' ; #?; '
B ; ' ?;' ?#B ;|| ' C@@ =A' =' #B ' ; AB#' ?!' #B ' K ;#>'
!?' =C=@ ' ' !?;! C8#' /;? =A' 8E ! ' ' #' '
B ; D>' FK; ! 8>' &= @# || /;? ' = ' + @8 ; 7'
%B #' #' !B 88' =?#' D ' 8 E!C88' =?;' 88?E D8 ' !?;' #B '
! ' ?<K =>4') ?! ;=?C;' + KC#>') ? ;=?C;' + L
; @#?; ' ?;' = A ; ' #B ; ?!' CK7?=' =>' A;?C= ' ?;'
K; # =@ ' EB # ?< ;' ; @#8>' CA;' = ; @#8>' #?'
C! ' ; ' ?;' !?88?E' =>' ?#B ;' ?<< ;@ ' %; 9'
!8@NC ' ?;' %; ' E #B' #B ' ?>=#' !8?@"' #?' B ' <K8?>9'
[' =' #B ' ! ' ="' ?;' =>' K ;#' #B ; ?!' ?;' K;?! # '
; ! =A' #B ; !; ' F@ K# =A' #B ' %; ' ?!' 8 = =A'
= ' D?;;?E =A' <?= >' 'K?=' =# ; !#' = '= A?# #L
=A' D 88 ' ?!' &F@B =A ' 88 = ;8>' = '=?' ?#B ;' / ;?L
=A' 8!?' 0 " ' #' ' B ; D>' FK; ! 8>' / ;? '
&= @# ' = ' + @8 ; ' #B #' =' @ ! ' #B ') ? ;=?C;4'
+ KC#>') ? ;=?C;4' + ; @#?; ' ?;' ?#B ;' < = A ; '
?!' #B ' ! ' ?<K =>' !B 88' #' =>' # < ' B KK =' #?T
KC;@B ' !?;' #B ' C! ' = ' D B? ' ?!' #B ' ! ' ?<L
K =>' =>' , ^ = ' ; =# ' ?;' ?#B ;' B ; # A ' D 8?=A =A'
#?' B ' #>' B ' B ; ' = ' (C@@ ! ?; ' ?;' !B 88'
=@ ' ?;' 8 = ' #?' B || #>' B ' B ; ' ?;|| (C 9' ||
@ ! ?; ' =>' !C< ' ?!' <?= >' =' D?;;?E =A' ' D>'
E 5 ' ?!' =# @ K # ?=' CK?=' =>' K ;#' D; =@B' ?;!?K '
0 !' #B ' ?; = >' ; =# ?;' !C 8 # ' ?!' #B ' ;?C=4 '
?;' ?!' =>' (CKK8>4' ! 4' &F@ ! 4' C!#?<4' /?8 ' # F4'
?;' =>' ?#B ;' (CKK8>' ?;' % F # ?=' 8; >' A; =# 44'
?;' EB @B' !B 88' B KK =' #?' D ' A; =# ' #' =>' # < '
B ; !# ;' #?' B ' #>' = ' B ' !?;! ' =>' < = 7'
= ;' ?!' E >' EB #!? ;' &F@ K# =A9' #B ! ' K ;# '
D; =@B ' ?;' !?= ' ?!' #B ' ! ' ; =# ' !C 8 # ' ?;'
<K?! # ?= ' !?; ' ?=' EB @B' ' ; #' ?!' 0? ='
!B 88' B KK =' #?' D ' A; =# ' D>' @#' ?!' / ;B <! =#9'
88 == ;8>' %B =' = ' =' #B #' @ ! 4' #B ' ! ') D ;9'
=?C;4' K KC#>') ? ;=?C;' + ; @#?; ' ?;' ?#B ;' < 9Z||
= A ; ' = ' ?;' <? ' ?!' #B ' ! ' ?<K =>' EB?' !BT 8B'
@?=! =#4' A; '#?4' ?;' KK;? ' ?!' #B ' ! ' KC;@B 4'
=@ ' ?;' J = =A9#?' B ' #>' = ' B ' !?#

= ' 8"' 0' = ' ?!' #B <' !?' A; =A' = ' KK;? =A4'
= ' D =A' !?C= ' AC 8#>' #B ;?!' @@?; =A' #?'[0 E'
!8 '' D ' 8> D8 ' !?;' ;>' C@B' ! C8#' =' #B ' #; K8 '
?!' #B ' 8C ' ?!' #B ' KC;@B ' !?' < ' ?;' #B ' !C< '
!?' 8 =#' EB ;?!' =' ! !#B' K ;#' !B 88' D 8?=A' #?' #B '
*=!?;< ;' = '#B ' ; < = ;' #?' D ' K?! ' ?!' #?L
E ; ' *=@B' ||KCD8 @"' C! ' ' !B 88' D KK?>=8 ' D>'
/ ;B < =#' = ' =?#' ?#B ;E > ' = ' #' ' 8 " E ! ||
B ; D>' /;? ' #B #' 88' $?;; A= ; ' EB?' !B 88'
?>=' ' / ;#= ; ' ?!' #B ' ="' !B 88' #B ; D>' D ' = '
D @?< ' = #C; 8 W ' ||(@?# < =' #?' 88' =# =# ' = '
KC;K?! ' EB #!? ; ' 0

%' =' ! ?C; i' ?!' #B ' C;AB' ?!' + > ;#||
!?;' = ' *<K? # ?=' ?B' 8 ' Q' ;
n
) ' /' (& *) ' 0 +' ?= ; =A' #B #'
#B ' %?C=' ?!' + > ;#' = =# =#' ?> 8' C;AB' ; '
!?< # < ' < = =#' !?;' %; ' !C!8 = ' A; #' 8?! ||
=' #B T8 # ' =# !# = ' E ;; i' EB @B' ' <C@ ' K?9'
KC8 #' #B ' %?C=' ?!' #B ;' < !#' D8 ' C;A ! ' = '
(" KK # ' EB ; D>' #B ;' %; ' @ > ' = ' #B '
C;AB'; C@ 9#?||' <?!#' < ! ; D8 ' ?= # ?=' = ' T
8!?' ?=! ; =A' #B #' D>' DC 8 =A' ' B ;D?C;' = '
D ; =A' DC; K=' E #B' #B ' ; !#' ?!' #B ' ?> 8' C;9'
;?E 9' !?;' < =>' > ; 4' ! ;'[D? ' EB #' #B >' E ; '
D8 4' B >' =A' 0 = < =' Q' (< =' !?;||B ' 9i'
' (; @ ' EB @B' ' ;>' E 88' "=?E=' #?' B ') ; @ '
B ' !# ' B AB' ?< < ! ?= ;' #B ' %?C= ' @?= L
?=' ' ; = ; ' K ; #' #B ;' D#' =@; ! ' #?||
' A; #' D AB#' EB ; D>' #B >' B ' =?' A !#; @>' !?;'
#B ' K @ ' ?!' 8 =' > ; ' C=# 88' #B ;' ; #?; '
(A= ' ' (CK ;@ ; 4' ||?;' ' #' K? D8 ' !?;' #B <' #?9'
(CD! !8' ?;' D ' =' =>' K @ #>' #?' ! # !>' #B ;' ; L
#?; ' E #B?C#' ?< ' ; 8 !! ' D ' K;? 4' #B >' B =A'
8 #8 ' ?;' =?' ?!B<?=' A?? ' %B ; !?; ' B ' #>'
E #B' @ ' = ' @?=! =#' ?!' #B ' ' !8 # ' ?!' / ;8 9
< =#' !?' 5' = D8 =A' #B ' ! ' C;AB' #?' K >' #B ;'
D# ' = ' @?=# =?E' A !#; @>' #B ; =' CKB?8 '
#B ;' B ;D?C;' Q' K; !?=' B?C! ' + ?') ; =#' #?' #B ' ! '
C;AB' =' *<K?8 # ?=' ?!' #E?' K == ' ?=' ;>' K =#'
?!' 8 ' ?;' D ;4' D;?E=' =# ' = ' ; # 8 ' E #B =' '
#B ' !8 ' C;AB' ?;' 8 D ;# ' #B ; ?!' !N;' #B ' K @ ' ?!'
=' > ; ' ?<< =@ =A' !;?<' #B ' ! ;!# >' ?!' (K9T
<D ;' = F#' #?' D ' CK8 !# ' Q' < = A ' D>' ?= ||
= < ' D>' #B ' A !#; # ' = ' %?C=' ?C=@ 8' EB?||
; ' B ; D>' !#; @#8>' ?D8 A ' #?' KK8>' #B ' ! < ' !?;||
/ >< =#' ?!' #B ;' C!#' D#' ' =' #B ' ! ; #' K8 @ 4' = '
; K ; =A' ?!' #B ;' B ;D?C;' = ' K; !?=' B?C! ' =' #B '
= F#' K8 @ ' = ' #B #|| #' #B ' ! AB#' ?!' #B ' 0?; ' (=L
@8 ;' #B ' <?!#' @?=! ; D8 ' ; #?;' EB?' ' B ; D>'
E ;; =# ' = ' 88?E ' #?') 88' #B ' < = A ; '#?' = 9'
0 @@?<K#' = ' !#' = ' D ' #?' K?>= ' = ' !#; ; A '
||!?;' #B ' ! ' *<K?8 # ?=' = ' C! ' 88' ?#B ;' 8 E!C88'
8 A =@ ' !?;' =A #B ; =A4' #B ;?!' ' #B >' ; ' =' C! '
#?9' ?' !?;' =>' ?!' #B ;' ?#B ;' @?<<?=' A?? ' = '
=?#E #B!# = =A' #B #' #B ' ! ' *<K?8 # ?=' ' A; =#L
' !?;' # =6' > ; ' > #' #' 7' B ; D>' @8 ; ' #B #' !'
2 #B =4#B ' !?; ' # < ' #B 9 D# ' ?!' #B ' ! ' C;AB

?=(

!8 88 D K > = #B ; ;D?C; = %?8D??#B ; K ; #B # #B = = =#B # @ ! #B !?;! *<7 K?8 # ?= !B 88 # ;= = # = #B *=B D # =# !B 88 D 8?=A ; 8> D8 = K >< =# #B ;?!

%= =! ?; ?!# #B C;AB ?!# C8;?! !?; K= *<K?! # ?=@? 8# = 8

%"

' (& *) 0 + %B 1 =A g #> = &!# # ?!/ ;8 < =# =A ?=8 ; #B / # # ?= A ; = =D> 2 88 <&;8" = ?<g < ! ?= ; !?; #B C;AB ?!# C8;?! = = < = D B 8! ?!# #B ?= <C= #> ?!# #B ! C;AB ; =A 2 ;; = = C#B?; #> #? !# =# #B <g ! 8 = # = *B 88 =A CK?= #B BD88 ?!# 8# ?; #E? K == CK?= B K>=# ?!# 8 #B ?<<C= #> 8B 88 #B = <?!# FK =# = 8!? #? !# =# #B <g ! 8 = = BC= ; K?# = !@?# > ;8> CK?= % ; = *=B D # =# #B ; E ; F@ K# !?; #B ; D; E =A = B J #> = &!# # ?! / ;8 < =# # " =A =#? #B ; ?=! ; # ?= #B ; E =# ?! A !#; # = @ > ?!#; = #B ; B ;D?C; Q@ %B ; !?; #> E #B @ = ?=! =# ?!#B ! &!# # ?!/ ;8 < =# +? B ; D> A; =# 2 ;; = #? #B A !#; # #? D &8 @# = <?; K ;# ?!#B ?<<C= #> #? !# =# = CK8 !# # = fD 88 =A ?= #B D?88 ?!< 8# ?; #E? K == ?= #B K =# ?! 8 #B # !B 88 D = Q !? 8 #B = #B ! C;AB E =# K;?! =#8> A !#; # * #B 8 # A !#; # EB? E ; = !! @ = %?C= ?C=@ 8 9 ; B ; D> C#B?; W #? < # = (8 # !C@B K ;!?= E 88 NC 8 !> = E 88 !! @# #? #B) ? ;=< =# #? D A !#; # Q ?C=@ 8?; @?=!?; < #? #B ! ## = @# !#?< ?!# #B ! %?C= = B ; D> ; @?<< = #? #B ! !?;= < K ;!?= #? ! #B &8 @# ?= 8 A 88> ?= = # !C;#B ; + @8 ; #B #7 #B ! < 8 A =@ = &F L @C# ?= EB @B C!C 8 #? K ! # =!# =@ ?!# #B 1 =A ?88 @#?; !?; D; =A =A = #B ! F@ ! !B 88 K ! 8 " E ! !?; D; =A =A = #B ! *<K?! # ?=

%= =! ?C; ?!# #B +C#@B ! ?! < 8L #?= !?; #B; > ;8> ! ; E #B = #B * 8 ?! ;; =

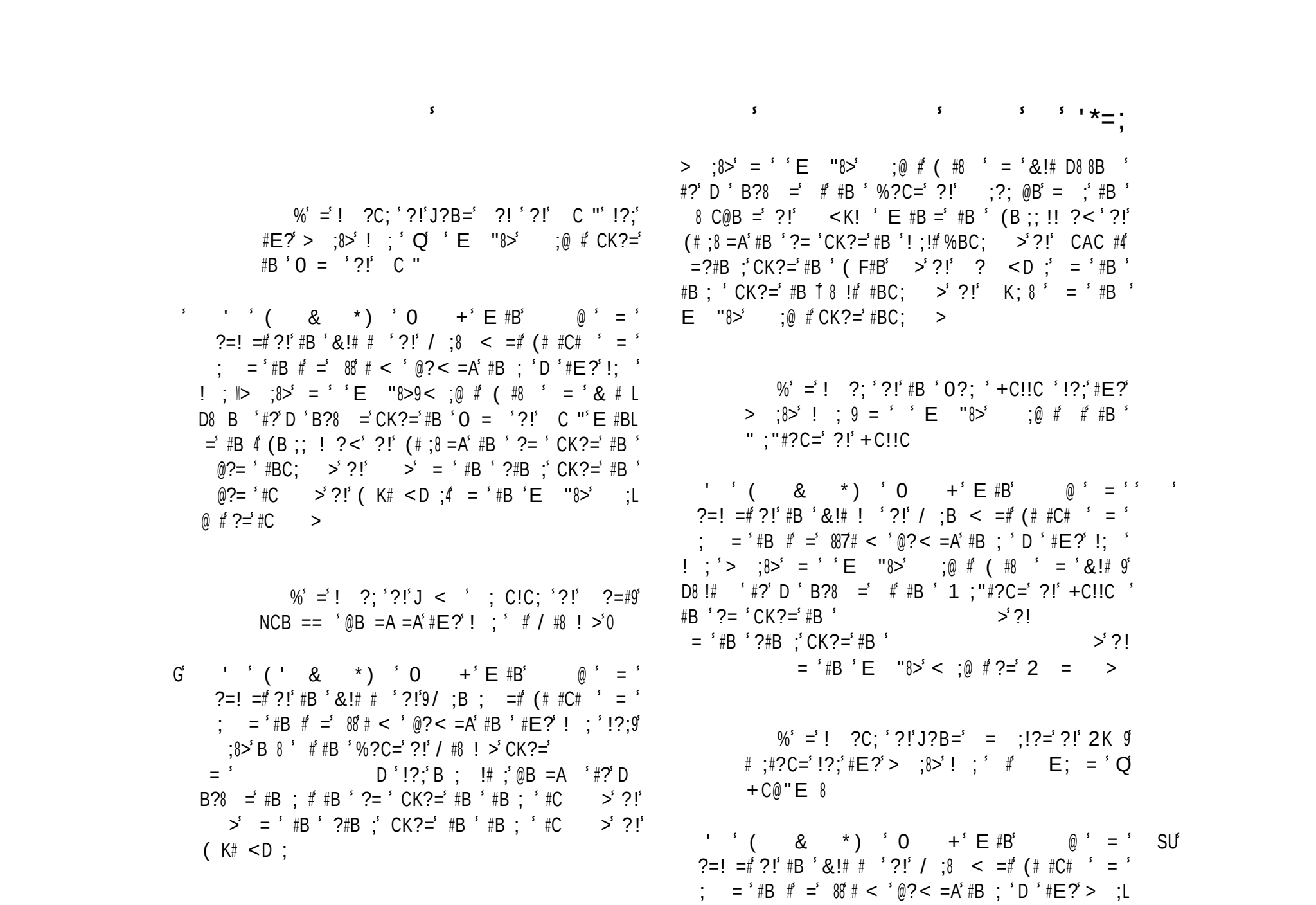
' (& *) 0 + ?= ; =A7B?E G <C@B # ?=#; DC# #?? #B =@ =A ?!#; !! @8@ = #; #?? B ;@ # = ! ; #8 = L ; 8 K8 @ ?!# #B ?C=#; > = #D =A ;>@?=L = =# !?; #B = ABD?C; =A K8 @ #?? B !?C; !; ! ; = #B > ;(#8 = &!# D8 B = => K8 @ E #B = #B *!8 ?! ;; = D 8?=A =A #?7 #B + C#@B ?!# < 8#?= %B ; !?; #> E #B @ = ?=! =# ?!# #B &!# # ?!/ ;8 < =# (# #C# = ; = #B # = 8 # < @?< =A #B ; D #B; !; ! ; B?8 = > ;8> # #B E ?! C=#8> #B ! ;!# #B ;?!# CK?= #B 8 !# #C > ?! 0$ D;C ;> #? D @ 88 ! ; #B @?= CK?= #B @?= #C > ?! > #? D @ 88 _ 7 ! ; #B CK?= #B @?= #C > ?! (K# <D ; #? D @ 88 !! ; = #B CK?= #B @?= #C > ?! @#?D ; #? D @ 88 ! ; = @B ?! #B ! > ;8> ! ; #? @?=# =?E !?; #B K @ ?! #B; >

K;?! =#8> A !#; # * #B B ; D> + @8 ; #B # #B 8 # A !#; # EB? E ; = !! @ = %?C= ?C=@ 8 9 ; B ; D> C#B?; W #? < # = (8 # !C@B K ;!?= E 88 NC 8 !> = E 88 !! @# #? #B) ? ;=< =# #? D A !#; # Q ?C=@ 8?; @?=!?; < #? #B ! ## = @# !#?< ?!# #B ! %?C= = B ; D> ; @?<< = #? #B ! !?;= < K ;!?= #? ! #B &8 @# ?= 8 A 88> ?= = # !C;#B ; + @8 ; #B #7 #B ! < 8 A =@ = &F L @C# ?= EB @B C!C 8 #? K ! # =!# =@ ?!# #B 1 =A ?88 @#?; !?; D; =A =A = #B ! F@ ! !B 88 K ! 8 " E ! !?; D; =A =A = #B ! *<K?! # ?=

%= =! ?C; ?!# #B +C#@B ! ?! < 8L #?= !?; #B; > ;8> ! ; E #B = #B * 8 ?! ;; =

' (& *) 0 + ?= ; =A7B?E G <C@B # ?=#; DC# #?? #B =@ =A ?!#; !! @8@ = #; #?? B ;@ # = ! ; #8 = L ; 8 K8 @ ?!# #B ?C=#; > = #D =A ;>@?=L = =# !?; #B = ABD?C; =A K8 @ #?? B !?C; !; ! ; = #B > ;(#8 = &!# D8 B = => K8 @ E #B = #B *!8 ?! ;; = D 8?=A =A #?7 #B + C#@B ?!# < 8#?= %B ; !?; #> E #B @ = ?=! =# ?!# #B &!# # ?!/ ;8 < =# (# #C# = ; = #B # = 8 # < @?< =A #B ; D #B; !; ! ; B?8 = > ;8> # #B E ?! C=#8> #B ! ;!# #B ;?!# CK?= #B 8 !# #C > ?! 0$ D;C ;> #? D @ 88 ! ; #B @?= CK?= #B @?= #C > ?! > #? D @ 88 _ 7 ! ; #B CK?= #B @?= #C > ?! (K# <D ; #? D @ 88 !! ; = #B CK?= #B @?= #C > ?! @#?D ; #? D @ 88 ! ; = @B ?! #B ! > ;8> ! ; #? @?=# =?E !?; #B K @ ?! #B; >

!?8 E #B = #B ! ; D?C; = %?8D??#B ! A !#; # ?? D @B? ! = ?; < ?; K ; #? !#B 9 ! ?<<C= #> #? F @# #B ; ?! #B < #B >!B 88 #B = ! ## = 8!? #? !# =# = CK8 !# = BC= ; K?C= !@?# > ;8> !;?< 88 ?#B ; #; = *=B L D # =# E #B = #B ! %?C= #B ! D; E ; D L =A F@ K# !?; #B ; D; E =A = # B ; D> + @8 ; #B # #B ! *<K?! # ?=7!B 88 @?=# =?E !?; #B !K @ ?! #B ;#> > ; ?<< =@ 8=A !;?< #B ! ; # ?! CAC!#= F# #? @?< = !! ; ; #> = &!# # ?/ / ;8 < =# +? &= @# = + @8 ; #B # ;> A 1#; # = ?C=@ 8?C; = ? ' @#?; ?!# #B ! *<K?! # ?=#B # !B 88 ?=! =# #? #B !K?! =A ?; *<K8?> =A =>K ;# ?!#B ! *<K?!# #B = !?; ; K ; =A ?!#B B ;D?C; %?8D??#B = !@B?? 8 = K >< =# ?!#B %?C= D# = !C@B ?#B ; KCD8 @" C! 88 == ;8> !?; #B A?? ?!# #B C;AB !B 88 D 88?E D> #B A !#; # %?E= ?C=@ 8 = < ?; K ;# ?!#B ?<<C= #> !B 88 D 8> 2 = !?8 C<#? ; !?C= = K > D @" #B ! < = #? 1 #B = F# C@@ =A A !#; # = %?C= ?C=@ 8 8!? #B # #B ! A !#; # = ?C=@ 8?; !8 88 D 8> D8 !?; 88 ?88 @#?; #B # !8 88 D KK?>=# D> #B <#BC# #B% > !B 88 < " C!# ?<K# = ; @"?= =A #? #B A !#; # Q ?C=@ 8 = < ?; K ;# ?!#B ?<<C= #> = #? #B & ;8 ?! 1 =" ; = (8 F = ; ;C@ 2 88 <&;8" = = #B 0 ; ?! 8A?= ? ;9 ! ; EB? ; B ; D> KK?>=# #? 9! #B # #B !K;! *<K?!# D #;C8> KK8> !?; #B C! = = !?;! = = ; A ; #B ! C;AB E =#



%' =' ! ?; ' ?!' (?8 =' <KD 88' ?!' D ;C@B 88' !?;' !?C;' ! ; ' > ;8>7

SV' ' ' (& *) ' 0 +' E #B' @ ' = ' ?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# ' = ' ; = ' #B #' =' '' # < ' @?< =A' #B ; ' D ' !?C;' ! ; ' > ;8>' (#8 ' = ' &!# D8 B ' #?' D ' B?8 =4' ?= ' #' #B ' 8#?C=' ?!' D ;8 =?@"' CK?=' #B ' #E =#>' >' ?!' @#?D ;' ?= ' #' 1 ;"#?C=' ?!' ?E ; == =' #B ' >' ?!' ?= ' #' 8 <C@" =' ?=# #B' CK?=' #B ' >' ?! = ' #B ' ?#B ;' #' 1 ;"#? =' ?!' 1 8D;> ' #B ' ' >' ?!' > ;8>4' '' 8> =A' =' #B ' (B ; ?!' / ;#B

%' =' ! ?C; ' ?!' 2 88 <' C= =AB <' dD;?#B ;' A ;< =' #?' #B ' 8 ; ' ?!') 8D ;#! 8 -' !?;' ' > ;8>' ! ;' Q' E "8>' < ;@ #' #' #B ' " ;"#?C=' ?!' 1 8D;

S ' ' ' (& *) ' 0 +' E #B' @ ' = ' ?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' (# #C# ' = ' ; = ' #B #' =' 88' # < ' @?< =A' #B ; ' D ' ?= ' ! ;' > ;8>' (#8 ' = ' !# D8 B ' #?' D ' B?8 =' #' #B ' d1 ;;"#?C=' ?!' 1 8D; -' =' #B ' (B ; ' ?!' = ' E "8>[< ;@ #' @B' (#C; >' ?!' >' = ' #B ' ! ' ! ;' CK?=' #B ' #E =#>' >' ?!' @#?D ;' > ;8>

%*/* %* 8 ' =' ! ?C; ' ?!' (;' J?B=' '' ?!' +C=A8 ! 4' ?!' #B ' 0 = T ?!' +C=9' A8 ! ' Q@

SG' ' ' (& *) ' 0 +' E #B' #B ' K @ 8' @ 9' = ' ?=! =#' ?!' #B ' &!# # ' ?!' / ;8 < =#' !?;' A; #' = ' E AB#>' ?B! ; # ?= ' D>' #B ;' K; 9' ! =# ' # !> ' ?=! ;< ' = ' KK;? ' =' B ;# ;' C= ;' #B ') ; #' (8' ?!' #B ' ' # ' =# =#' 1 =A ?<' ?!' #B ' # ' #' 2 B # B 88' #B ' & AB#' >' ?!' ? <D ;' = ' #B?C! = ' (F' BC= ; ' & AB#>' =' > ; ') ; =# ' #?' (' J?B=' '' ?!' +C=A8 ! ' ;;?= #' ?= ' ?!' B ' # ' <?!#B?=?; D8 ' / ; >' ?C=@ 8' #B ; =' A= ' ?!' C8 @ <DC ' ;@B =#' C;A ' ?!' & =DC;AB' =' 8 ! ; =#' = ' #?' J < ' 88' B ' 8 !#' 8 E!C ' = ' = ' #B ' B ; ' < 8 ' #?' D ' K;?@; #' ?!' B ' D? >' 2 B 8" ' ! ' A =A' #?' 2 88 <' 88' B ' @?= ' 8 E!C ' '' ?= ' = ' #?' #B ' B ; ' < 8 ' 8 E!C ' >' #?' D ' K;?@; #' ?!' B ' D? >9 2 B @B' ! ' A =A' #?' #B ' B ; ' < 8 ' 8 E!C88>' #?' D ' K;?@; #' D>' #B ' ' (' J?B=' '' = ' #B ' B ; ' < 8 ' ?!' #B ;' D? ' 2 B @B' ! 8A =A' #?' #B ' ?#B ;' B ; ' ?!' # 8 ' = ' K;? ! ?=' < =# ?= ' = ' @?=# = ' =' #B ' ! ' B ;# ;' 9E #B' = ' C= ;' #B ' FK; ! ' K;? ! ?= ' @?= # ?= ' @8 ; # ?= 4' ; !#! @# ?=(' 8 < # # ?= ' = ' NC 8 ! @ # ?= ' #B ; =' FK; !#' 88' B ; ' B?8 K' ' !?;' 0' FK; !#' D; # # ' @ C! ' !!' 88' = ' B '' #B ' #?C=' 8 = ' Q' < = ' ?!' C8 ' <DC(' E #B' #B ' K ;# L

= =#' ' 2 = 8 E ' / K ; =' = ' @8 E ' E #B' '' #B ;' K ;# ' = ' K ;# = =# ' 8> = ' ?!' D !?; ' E #B =' #B ' ;;?=>' ?!' ?8 =AB < ' = ' (B ;; !!9' ?<' ?!' T ; @"' ' 88D' 88' = ' B '' #B ' 8 = ' #KC=' = ' < = ' ?!' $!#' !#8 ' 2 !# ;' 0C< =' +?EB '' + ?B? < ' ?#B ;E > ' @ ' ' 8 ! ' C8 ' %DC=' = ' E' %?C=' E #B' #B ' < 8=' ?!' $!#5' !#8 ' < 8=8 = ' <C8#C; P' ! B =A ' !' E 88' =' 8#' ' !; B' E # ;' B?C! ' D AA =A ' > ; ' ?;@B> ; 4' K ;# ' K = @8 ' # == =# ' # == B ; ' = ' ; @ ' ?!' !; ' # == =# ' E #B' #B ' @ !#8 ' #?C; ' !?;# 8 @ ' = 4' < == ;' K8 @ ' ?!' $!#' !#8 ' = ' #B ;' K ;# = =# ' 8> = ' E #B =' #B ' (B ;; !! ?<' ?!' ;E @"' = ' E #B' 88' Q' C= ;>' < == ;' K8 @ ' B?C! ' D AA!=A ' > ; ' ?;@B> ; ' ?C#! ## 9' =! ## ' #?!# ' @;?!# ' < 8= ' < C8L #C; ' E?? ' ! B =A ' ' E 88 =' 8#' ' !; B' E # ; ')? 8' @? 8B CAB ' K?;# ' B < D?C; ' < ?E ' < C; ' <?! ' @?< < ?=# ' K ;# ' ! = 8@8 ' K; 8 A ' 8 L D ;# ' ! < =# ' = 4' K ;# = =# ' EB #!?< ;' ?!' 88' = ' B '8' #B ' !?;! ' 0 = ' ;;?B ' = ' ?#B ; ' ; K @# ' D? K @ !> ' E #B' #B ' K ;# L = =# ' #B ;?!' #?A #B ;' E #B' #B ' # = ' !8 T' ?!' #B ' < =' ' E '' K !?= A ' ' @@ ; A ' ?!' '' = ' B 88' #B ' ! ' 0 = ' E #B' #B ' K ;# = =# ' = ' #B #' ' !?;' #B ' K; =@ K 8' = ' @8 " ' '' Q' B 88' #B ' 0 = ' = ' ;;?=>' ?!' 2 C@B#?C=7@?<K; B = =A4' #B ' 0 = ' ;;?= ' < 8= ' < 8=8 = ' # = ' E?? ' ! !# =A(' < == ;' K8 @ ' B?C! ' D AA =A ' > ; ' ?;@B> ; ' < ' ; ' <K! ' # == =# ' # == = ; ' ;L @ ' ?!' !; ' # == =# ' ?!! @ ' = ' ?#B ; ' EB #!?< 9' ;' K @ 8>' = ' A = ; 8>' < =# ?= ' = ' @?=L # = ' =' #B ' ; AB# ' = ' =! !#< =# ' ?!' #B ' ! < ;' < ' ## ' A; =# ' #?' (' = ; E' < >' ?!' D9' D?# B ' 4' = ' #?' (' = ; E' < >' ?!' 2 C@B9' #?CB' X F@ K# =A' #B ' 0 = ' ?!' / ?K 88 ' = ' K ;#O' = =# ' K!' #B ' ! < =' EB @B' ' == F ' #?' #B ' !?;9' ' ;;?=>' 88' 8> = ' E #B =' #B ' ?=!# DC8 ;>' ?!' =A#?C=' = ' (B ;; !! ?<' ?!' & =DC;AB' = ' #B #' =' K @ 8' 2 ;; = @ ' = ' (@C; #>' ?!' #B ' !?;9' ' 0 = ' = ' ?#B ; ' K; =@ K 88>' KK= ' #@J #B ' ! ' (' J?B=' 88' D>' #B ' ! ' (' = ; E' < >' ?!' DD?# B 88' 1 = AB#' ' %C#?;' ?!' 0 E' ; 9' = ' ; #?C; ' = ' ' DC; =9# " =A' CK?=' D <' !?;' #B ' (' = ; E' < >' ?!' 2 C@B#?C=' 1 = AB#9' ?= ' = ' B ;' ; ' = ' ; #?C; ' #?' #B ' @ !#' (' = ; E' < >' ?!' 2 C@B#?C=' B ' !! #B ;' = ' ' B =A' /?E ;' = ') ?< < ! ?=' #?' #B #' !! @#' !;?<' #B ' 0?; ' ?!' ?C=! 8' Q' (! ?=' = ' ?!' 88' = ' B 88' #B ' 0 = ' = ' ;;?=>' ?!' +C=A8 ! ' @?<L K; B = =A' #B ' %?C=' = ' = ' ?!' +C=A8 ! ' %?C= 0' = ' 0 = 0' ?!' ;= "=?E ' E[#?E; ' !?;# ' @ ' < == ;' K8 @ ' B?C!! ' D AA =A ' > ; ' ?;@B> ; ' ? @? # ' @C=<AB ; ' K ;" ' E ; ' A; = ' # == =# ' # == = ; ' = ' ; @ ' ?!' !; ' # == =# ' @?;=' = ' ' E 8"' < 8=' #B ;?!' < 8=' 8 = ' <C8#C; ' ! NC 8 ' E?? ' ! B =A ' @? 8 ' @N 8B CAB ' 8# K = ' = ' A ;9' = 88 ' >< ' = ' 8>< ' !#?= ' K ;# ' K = @8 ' = ' B 889' K ;# = =# ' ?!' #B ' ! <' =' EB # ?< ;' 8> = ' E #B =' ' #B ' (B ;; !! ?<' ?!' = '' = ' B ' #B ' 0 = ' ?!' %B; K8 = B 88' = ' =?@"B 88' 8> =

;B*

%*$* %* =! ?C; ?!#B
B ;C;A ?= 4Q D ;C;A ?= K?#B @ ;
?!& =DC;AB

E ; (?8 = + ?= D>#B B ; = ; K; 9
! =# # ?!#B ! C BNB 8 J?B= = (# 2 8L
8 < @@?8!?= ?!#B # *8"= = D>#B ;# B 88
; #?; ; 8 = K ;!?= 8 EB?# B => ; AB#
!! @# =A#B 9 0 = Q ;;?=>#?#B
.# J?B= 88 = B !?; %?A #B ;# E #B#B 9
B 88 8 A =@ ?= = C! CK?=#B !?;
+ @; # ?!# C @ # ?=# A = # #B CK ; ?; ?! 0
#B 0 = ?;# =>K ;# #B ;?!# E #B# 88 #B #
B !?88?E ?;# < >!? '?E#B ;CK?=# E #B# #B
B !88 ; AB# = (@C; # ?!#B # 0 =
= = ?#B ; D? E; ## =# E #B# #B ; AB# =
K?! ! ?=?!#B < =# @NC ; D>#B 9 ! (#
J?B= 88 D># ;#C ?!#B !?; + @; # ?!
?CK# (8 = C @ # ?=# E #B# #B !?;! + L
@; # #! 8! B 88 A;?C= = 2 ;; =# #B ;?!# =
#B B 88 B K?>=# = ;# @8 ?!#B < =
= [># E #B @ = @?=! =# !?; ?!
0B &!# # ?!/ ;8 < =# B ; D># < ## + L
@8 ; + @ ;=1 = ; =# #B !?;) = ; 8 L
! @ # ?=4?!#B !?; + @; # = A;?C= Q7
E ;; =# ?!9#B ! < = = 8 A =@ N= #B ;L
CK?=#?D B 8 !! @#C 8 Q C!! @ =# = ?!
8! A; # !?;@ !#; =#B# = !! @# #?'# =# =#
= KC;KN! #B < = E ; ;D?=;9
DC<B ; = # 8 =#B# =! ;# = =A;?! 8D # =?#
!? ?= EB ; = =# = E #B =C88 # ! C8# L
! @# = <K ;! @# ?= X ! =>D 8! E 88 =?#
=< 7>E #B @ = @?=L
! =# !?;! + K =! = D #B ;K; =#
+ K =! !?; ;= !?; <C@B #B B ; #?;
?!#B # K ;# ?!#B 0 = ?! ?8D; = K #B# #B
(J?B= 88 C#B?; EB @B ?< # <
B?8 ?!#B & ;8 ?! =AC B D = =C! ?!
K ><= =#?#B &F@B NC ;= ?=8>?!(= B 8 ;
?!D ;= = (= B 8 ; ?!9EB #9CKE ; 9?!
#B ! !?C;#>> ; D>K !! =!C88 # ! @# ?=?!#B
@#C 8 ! E C#> C = = K > D8 #?#B 1 =A
> ;8>!?;#B 0 = = =#B #!?;#B CK 9 4
; ?; ; 8 !! !?;#B ! E C#>%B ; !?;
#>9E #B @ = @?=! =# !?; ?!B
&!# # ?!/ ;8 < =# # !> 88?E = ?=L
! ;< 9#B !?; C! ?!K >< =# = D>#B ;K;
=# (# #C# ; = = + @8 ; #B # =?A; # ;
NC =# #>#B =#B !?C;# = B 8 ; ?!@#C 8
B 8! EB # B 8! D ;! !# 88 D F @# !?;#B
@#C 8 ! E C# ?!#B !?; 0 = = 88 # <
@?< =A = #B # =?#E #B # = =A =>A; # ;! E
C#>?! @#C 8 D @?=# = =#B =# =# B ;9 1
#?C; ?!#B 0 = = #B # #B K; =# @#
!8 88 D C!! @ =# 2 ;; =# #?#B &F@B NC ;!?;
#B # !! @# = #>E #B @ = =
?=! =# !N; 4 D>#B ;K; ! =# +?#B F@ K# #B
K; =# @# ?! # ! @ # ?=?C# ?!#B @# (8 ?JC
#?D K !# =4#B K; ! =# (! ?=?!/ ;8 < =#

' (& *) 0 +E #B @ = =
?=! =# ?!#B &!# # ?!/ ;8 < =# B # !> =
= KK;? = = !?; B AB= ! = B (C@@ !9
?; K ;K #C 88>@?=! ;< 0 " C; (? ; A=
0?; E #B > @ = @?=! =# !?; D>#B ;K; L
! =# # !> = KK;? = !?; B AB= !
= B (C@@ ! ?; K ;K #C 88> ?=! ;< =) !#
= / # =# A; =# D> C; (? ; A= 0?; = =
0 >1 =A 2 88 < = 3C = ;># ? = =
! ?C; ?!#B B ;C;A ?= = B ;C;A ?= K?L
#B @ ; ?!& =DC;AB ?!#B # 1 = =A#?C=
#B #E #> AB# > ?!$ D;C ;> = #B?C! =
(F BC= ; =>= #> !?C; > ; = K !# #B ; [
A; # (8 ?!#B #B ;= =# =# 1 =A ?< ?!(@?#L
8 = EB ;?!#B # =?;!?'?E) ' 0*&0 ' (# #
* + A; # (@?# =A8 < $; =@ #
D ;= F # A = ! N ! =!?; =!= 9
DC K;?D B?< = DC NC ?K; ! =# 0 # ; K ;9
= ; =# (8C# < 3C = ?NC < ? F =A =#
=?!#; W 8? NC? ?<= ;# # (@ =# =!; *<9
K ; =?!#; ! = !8?; ; # #K;?<? ; ?8C<C 9
A ?=?!#!D K @#?; ! ; ? F = <C NC <C# 8 #
NC <= @ ! ; # ?< # !?; # ' (?@ # #
C ?88 A C< B ;C;A?;C<NC =# NC =?!#;
& =DC;A !# @?=!# #C# 3C N 8 # ; #E;
FK ; =# K;?D =!# #C# ?= # <C8# K ; A; 9
= # ?= DC F# ; @?<K ; # =C88 C K <# ;; 9
;C< = ;# @ # # ; NC <@ 8 D ;; <
3CC<N K ; # '8 = ;# B ;C;A @ # !# < # ?7
?;#C<!CC< K; @ KC C@ # =?# # 8 NC <9
B D =# ;# KB ;< @ C# @ NC !C < @ < =#
KB ;< @ C NC ?; # @?<K?= ; =?;C=# C#
;;?; DC # @?< ! NC /B ;< @?K < ;
@@ ; ?8 =# NC NC =?=K?! C=# =?= = ; #
= 88 ;# ;! # ! F ;@ =#C; < = 9
DC =?= CD @ =#C; 3CC< = NC ## =# @?=! 9
; <C K? # ! @# <88 < (= #C & =DC;A =!
K;C =# (?@ # # < B ;C;A?;C< # B ;C;A?L
;C< /B ;< @?K ?;C<NN <K;? K ;? B D # 8
@?= C=@# ? C@@ ! 3C KK NC ;# ' =K ;9
! @# ?= < NC < F < < F ; # # < C<
K; @ KCC<8 # NC?<C8# @8 ;?;C< ;?;C<8 D ;!
@#C #N < @#C 8 # @?<<? K;? K @ #C; #
F ;@ #C =?!#; # @8 ! B ;C;A ?@# ! < #
FK ;# ! < DC= =!#;C =#C; # D ?;C< 9
@ KC8 = A= =?!#; 8?@ CD < @ # KB ;9
< @?K K ;K C@ <? C< ! =# ; ; @C; #
! CD #?;C< =?!#;?;C< ! 8C# ?D = K;? K L
@ #C; #N4 B @# =C = NC ! @#C<!C ; # = NC i ! ;
K?#C # C NC ?C#=?!#;C< < ; =#C; K @#C =
A; # ?!C< ! ?; < # D = A= # # <*# NC @ ;# ?;
(?<= ! ?8C<C ? F K;?K; ?=?!#;?
<?#C @ ;# !@ N=# # K; ;?A # ; A 8 = # 9
< = K; @ =# @C C @C=NC JC; K! ?=@ !

K; C @ ?i ' ?#C<' ?<= C<' K @ # <' <C= 9 [?;C<'i ?; <'@C<' 8 D ;'# #DC ' #K; 8 A ' i9
< =' #K;'?KCA= # ?= <'+ <= ' ?=@ <C ';' #C<' i @ <C ' KK;'?D <C ' #' @#' KK;'?D # ?= ' 98 # i ' ; L
?= ' &K i#?8 <' ' NC?= <' (; = i < ' ; '
(@?#?;C<' A = 'iCD' iC?' i @; #?9 (A 88?' i @# <' #
@?=@ i <' ' # '# = @ <? '< =i ' ' ==?'
+?< =' < 88 i <?' NC =A =# i <?' (F A i <?' (K9
<?' &#' < 8 # ;' &K i#?8 <' K; < i ' =' ?;C<'
i ?; <' @?=@ i '@=@ i ;< =# <' # KK;'?D =# <' D'
J @?D?' (F#?' (@?#?;C<' A 'D (# i < '< <?; '
iCD' K; # ' iC?9(A 88?' ' # ' (F#?' 'JC= '
==?' +?< =' 88 i <?' (F@ =# i <?\ @ <?# ;# ?'
@' =?=' + @; #C<' i C @# ' ; =C<' =' KCD8 @?'
iC?' ?= =#C' + @ <?' (K# <?' ' ? <D; '
==?' +?< =' < ' i <?' i F@ =# i <?' NC ; A 9'
i <?' K; <?' =' ?;C<' i ?; <' i @#C<' @C# #' =' ?
C= <' i = <' + @# #C<' A i#; #C' # (= #C '
& =DC;A =i ' @ <?' ' < =i ' CAC i#' 9 ==?'
+?< =' ; 88 i %=?' (F@ =# i <?'NC ; A i <?=?'
@?= #C<'&#' D' ? <' A i#; #C' # (= #C' 8 C '
(= #C ' @?=iC8#C<' ? <' # <K?; ' @?=i ; K#C<'
A i <?' i @C= N' 'JC= ' ==?' +?< =' 88 L
i <?' i F@ =# i <?' NC =NC A i <?' NC =#? &#' D' 9
8 <?' (F@ =# i <?' (K#C A i <?' & ' C# <' C=#
(@C= ?' ' =i ' CAC i#' ==?' +?< =' ' 9
?; =C<' A=' =' iC?'KCD8 @?' ?= =#C' A i <?'
<' A ';?8'(@C= 'D # i = ' < <?; ' @
#NC 'A = ; # <' @A=# =# ' =' KK;?D # ?=' (; =i9
DC ' =' ?;C<' i ?; <' # @?<?' C<' N' K @ # <'
DC ' @# '+ @; # ' # ?=i# #C# ?= DC ' = ' NC =9
?= ' # ?= # '@C<' ?<= DC ' ?= '8 # ; 'K # =# 9
@ i ?;C<' 8 '(= #C' '.;D =?'& =D =A =i ' 8 D'
?; =DC ' A=' =' iC ' ?= =# DC 'KCD8 @ UKi '
==?' +?< =' ' 88 i <?' (F@ =# i <?\ @ <?# ;# ?'
' @ <?# ;# ?' ' @#?D; ' ==?' +?< =' 89'
D # i <ii < <?; ' CD' (@; #?' C ' (A ' ?'
=?i#;?' J @?D?' C '=?< = '3C ;#?'(@?#?;C<' A'
@?=@ i <' K; @# ' B ;C;A ' /B ;< @?K ' ?;C<9'
K8?< # '@?=# =# ' &#' < 8 # ;' # <'@?=i ;< 9'
?= <' # KK;?D # ?= <' 88 C ' K8?< # i @# <'
i ' =' ?;C<' C8# ; C ' <C= < =' KI @# <' ' <7
0 F <K# ?= ' O # ; ' <' ' (; = i < ' ; ' A = '
K; i # ' B ;C;A ' ' # 'iCK; ' @# ' @?=@ i <'
NC <' K; @# ' B ;C;A ' /B ;< @?K ' ?;C<9'
, NC ' i@ KC8 ' #i ; ' K ;' K; i =# ' F# = ' ?8C9'
; <' ; ?@ <C ' =' O # ; ' 88 ' K # =# DC ' ' (; 9
T<C ' @' C8# ; C ' + @8 ; <C ' ;=' @?<K; B = ;'
?<= ' < 8 # ' # ?@ # ?= ' XNC<' ;D ' =C=@'
8 =# CiC' N' @' &F ;@ #C ' &NC # #C ' ?= K@ 9 '
# ?= ' ;< 8C i#; ' 8 NC ' = D ' @?=# =# ' # @#?'
B ;C;A?' #) B ;C;A?' /B ;< @?K ? ' ?;C<N 9
K; @#97 D' i# ' ; # ' ?' ;=' =' K ;i?= ' ?' ;=' =
; DC ' # D?= ' # D' ?<= ' i?8C# ?= ' K @C= ' ; 9'
?= ' ?;C= <' 8 D ;?' i ' # <<C= ' ?; = 9'
<C ' # 8 DC ' ?8C# ?= DC ' NC<' K ;' @# ' A=' ; 9'
t =C<' =' iC ' ?< # ' KCD8 @ # <?K= =#C;' 8 NC <'
@#' B ;C;A ' C88?'# <K?;' K; # ; #?' ?8 ; ' @?=9'
iC ;C=# F@ K# ' /;? i?' i ?' ' 8' # 8 '
?;C<' NC ' < F < ' ?=D ' 9B D DC=#C;' K; i =# '
i =# @C<' F ; # DC ' =?i#; ' ' K; i# = <' iC <'
@C; <' # ?ii C<' ?<= DC ' NC DC ' ?KC ' iC ; #
K ; #' @C<' ?@ #' C =# ;C<7 # <'+ <C ' ?=9'
0@ <C ' ?<K;?D <C ' 88 ' Ki < # ?;C<NC ' (C@9'
@ i ?; DC ' K8 =C<' #8 D ;C<'K; 8 A C<'8 @ =# <'
#K?# i# # <'i @ ' # F ;@ = 'C#; <NC ' ;# <9'
B ;C;A @ <' # /B ;< @ <' #iC?' # <' i KC9'
8?' =' ;#' C#; N ' =i#;C = ' F < = ' # < #9'
= ' ?'NC?' =' C#; NC ' ;# 8 # ' ;C #?' #' '
C#; <NC ' i @ = <' i # ' ?= ?' + <C ' ?=@ <C '
= ;=# #m' # <' ?=i# #C = ' # K; i ; D = '
i?; ' K @C8 #?; ' i C JC @ 'NC' =' i = ' i =#' ='
@?;;CK# ' KB ;< @?K ?;C<' KB ;< @ C < @ L
< =# ' C @ =#' # =# =# <' @ =# #N ' C#' ?<= L
DC ' iC 'K; C ' @?=@ i ' D' K; 8 A ' NC '8 =' 7
# K @ # <' i;C =#C;' #NC ' B ' ;D # <' @?=i ;#'
i =#@?=@ <C ' #NC ' < 8 # ;' @C<' =' < <?9'
; <' ; ?@ <C ' =' O # ; ' 88 ' K # =# DC ' ' (; 9

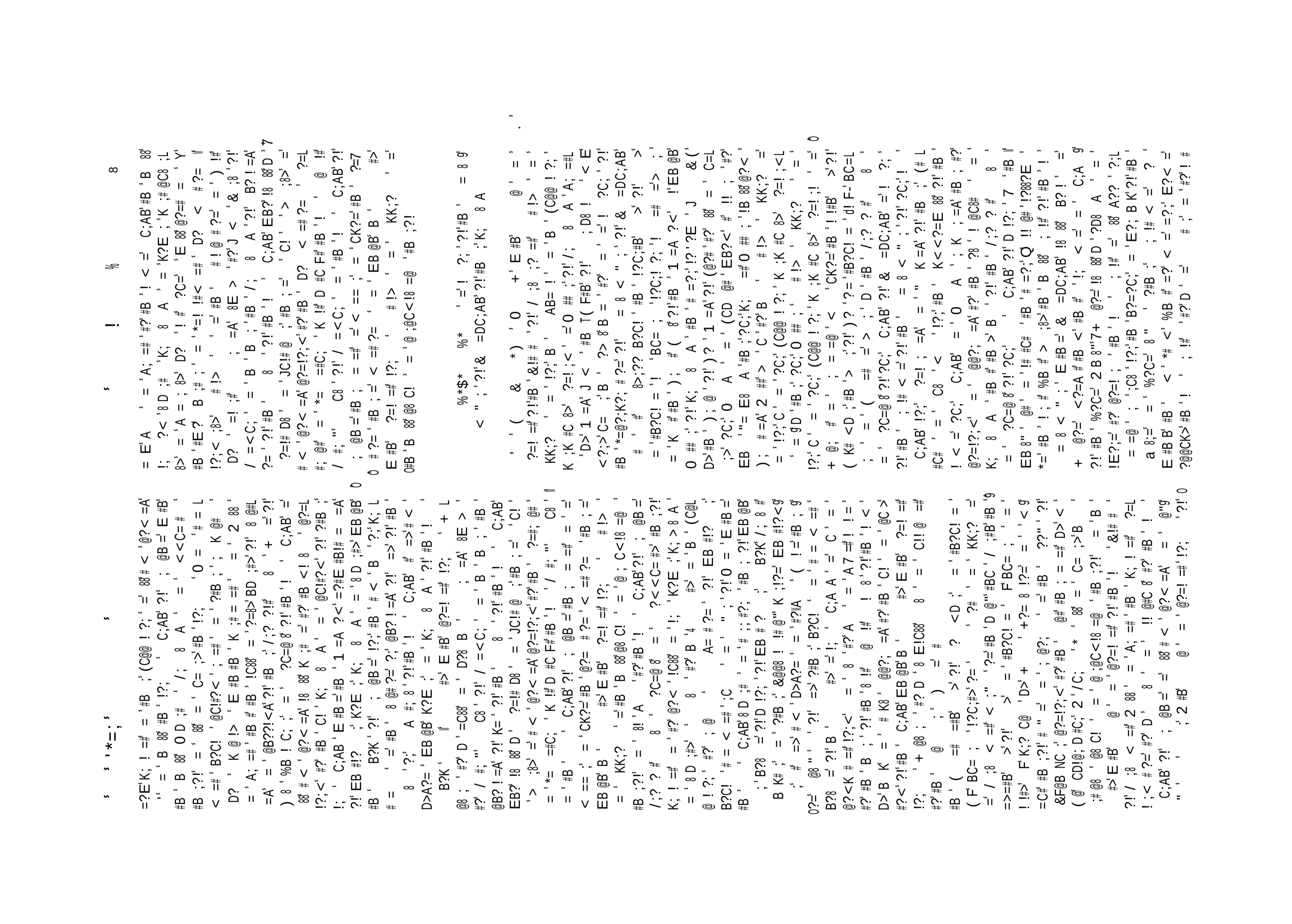
%*$* %* =! ?C; ?!#B C;AB ?! ; @B =?!#B ;/; 8 A

(& *) 0 +E #B @ = @?=! =?!#B &!# #?!/ ;8 < =# #!> KL K;? = K !K #C 8> ?=! ;< = ! ?C; ?!#B C;AB ?! ; @B =#B) !# = #!@ #?=C=L ;E; ## =< = A; =# D> 1 =A B ;8 #B $; #?!; D8 ! < <?;># B C;AB?!; @B = = EB ;?!#B # =?; !?88?E (@ CK; @; D #C;0&(C;(? ; A=0?; E #B @ = @?=! =?!#B &!# #?!/ ;8 L < =# #!> = KK;? = K ;K #C 8> ?=L ! ;< #B B ;# ; *=! !#< =# = ?#B ;; AB# A; =# D> B # K; @ ! ?; =! ?C; ?!#B C;AB?!; @B =0 ; @# =A #B ! < =!; C;AB ?> 8 E #B #B K; 8 A @?=# = #B ; = K @ 8> #B B ;#?C; = *=! !#< =# A; =# D> 1 =A J < #B #B ; B # !?; A; = ! ; ! #B ;C= ;#B A T # (8 D ; =A #B # #B ! < = E = ! !; C;AB ?> 8 = K > #B ;% F = ?=#; DC# ?= E #B ?#B ;!; C;AB C! = #B ; !?; A ?#?#B / ;?L ? # 8 ?C=@ 8 = ?< <C= #> ?!#B C;AB #B =K; ! =# = #?@?< #B K ;# @C8 ;@C!#?< ; AB# = K; 8 A < =# ?= =#B B ;# ; @B =#B #E =#> AB# >?!K; 8 =

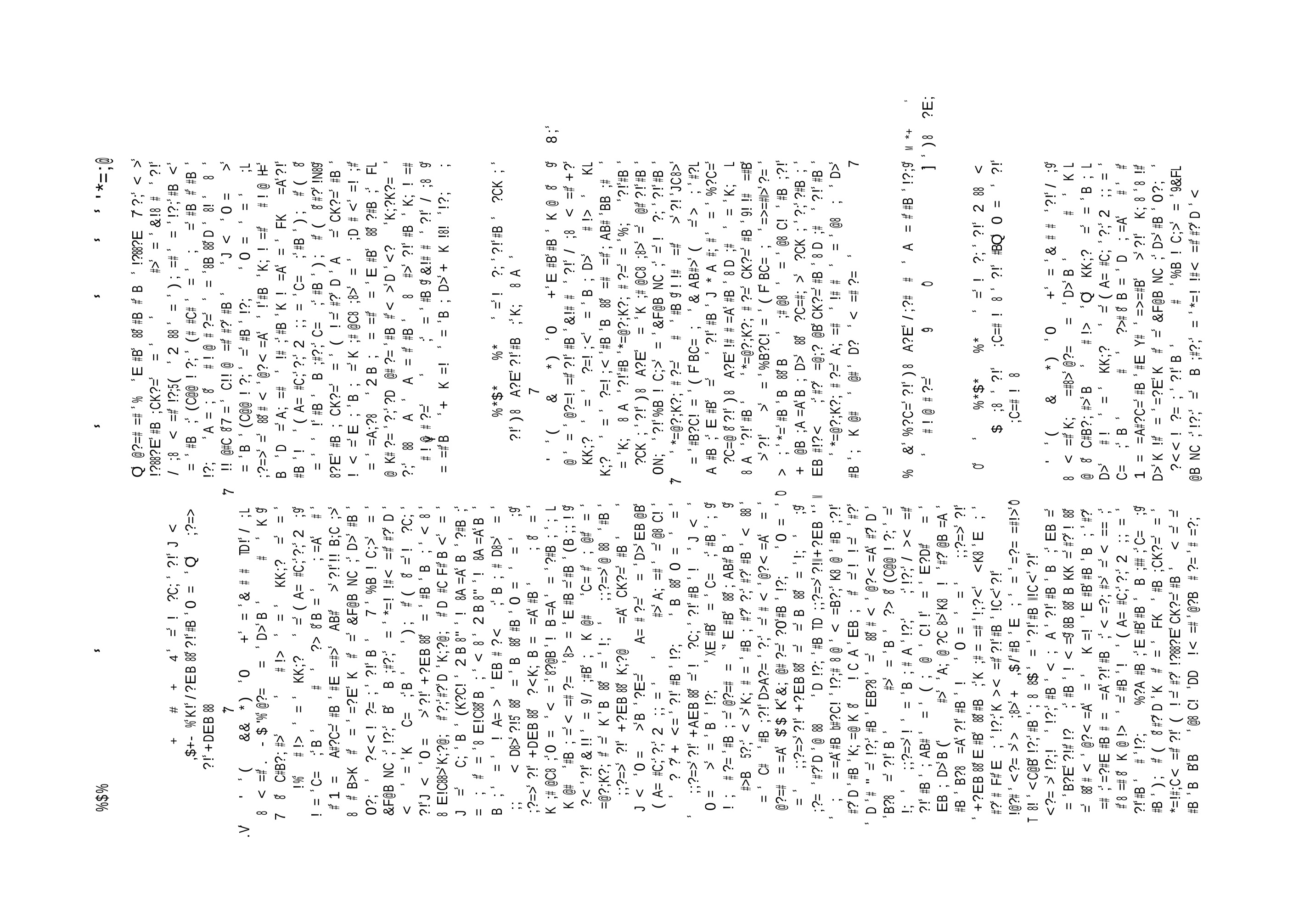
#B?C! = !?C;BC= ; !?C;! ?; AB# > ; = @8 " # !> = KK;? #B B ;#?C;7 = *=! !#< =# A; =# D> 1 =A J < #B (F#B B # !! #B ;?!D8 ! < <?;> b = ;#B A; # (8 #?#B ! /;? ?!# 8 ?C=@ 8 = ?< <C= #>?!#B C;AB?!; @B =#B = K; ! =#7Q #?@?< = #?#B B? K # 8?!#B C;AB?!; B 88 0 = # = < =# B?C! ; =# = ?#B ; EB #!? ;K ;# = =A #?EB #!? ;/; D = ;> 8# ; A ?;?#B ; B K8 =;> EB #!?L ;o?C= E #B =#B ! C;AB = 9 0 D ;# #B ;?!EB ; ;#B ! ; =# C #B ; #?8> # #7 0 #B #B #E =#> >?!JC= = #B?CL ! = d! -BC= ; #B; !@?; #E 8 > ; = 88 = C= T B ;# @8 @8 C! = @ ;@C<!# =@ 0 #B ;?!= E 88 = A; =# = !?; B #> = B (C@@ ! ?; E #B @ = @?=! =# !?; + @ ;= = ; = #B #B K; ! =# ?=! ;< L # ?= = !8 88 D 8 = !! @#C 8 #?#B ! C;AB?!; @B =/;? ? # 8 ?C=@ 8 = ?< <C= #>#B ;?!= #B ;(C A ! ?; = # < @?< =A !#B !?; B ;#?; *=! !#L < =# = ?#B ;; AB# ; K @# !?; E ; E?; D> E?; =! ;# #B ; =2 B ; = =# = E #B 88 ! @# = =@?= = =@ #B # < > !?88?E [#B ;CK?= ; E #B @?=! =# !?; ?!#B &!# # ?!/ ;8 < =# B + K =! = D> #B ! K; =# + K =! !?; ;= !C;#B ; [; E #B @ = @?=! =# !?; ?!= E)) ; =# = + K?= #?#B /;? ?!# 8 ?C=L @8 = ?< <C= #>?!#B ! C;AB?!; @B =

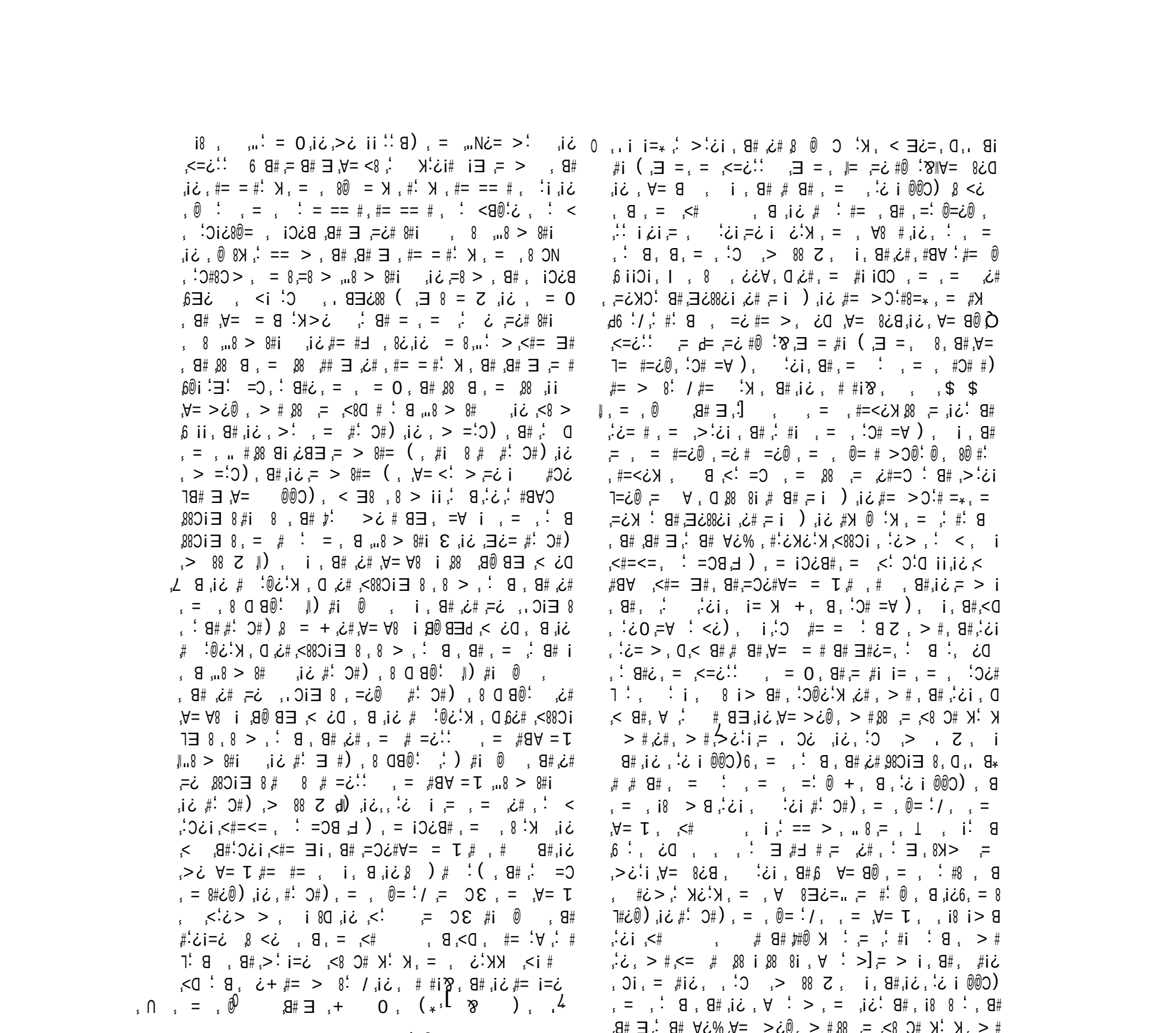
T *+ j
+ : (
* .
= ? +,
' . 0L

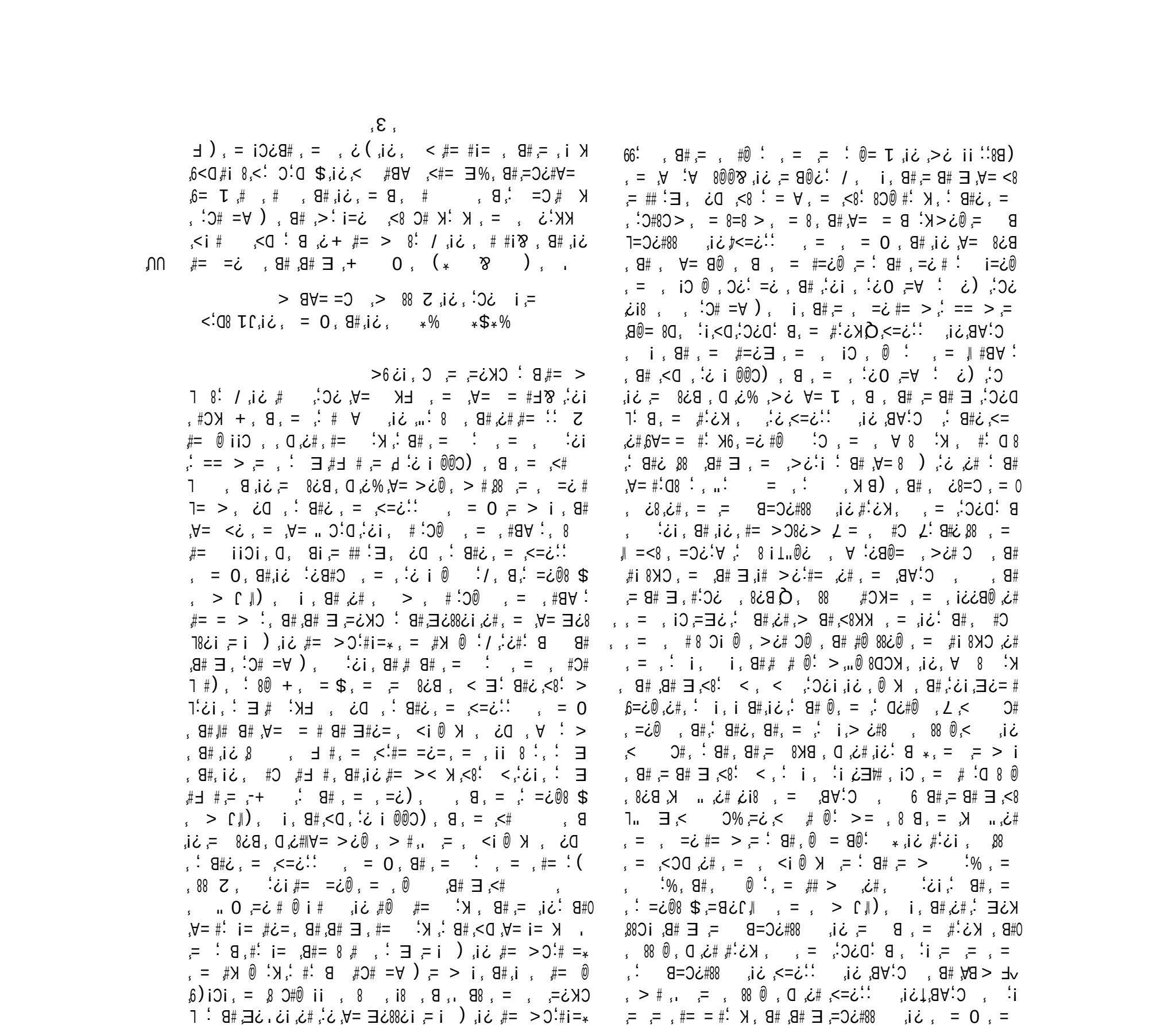
% &2 " # ; = 0 # # ; ?!#B C;AB?!
+ = /;?# !# A = # #B # ! @ # ?=



CK D??#B DC# i' B ' D ' =i; < =?; =i; < = ' Ε i ' ?i'#B ' i ' ; i# ▩▩ == ;8>' = 'ΕΒ =;#B >'i # ?i'#B ' ; i## " ' =>'K; =# @ ' i?;' 8 i ' # ; < ' #B =; CK D??#B'#?' K >'B 8i ' =' < ;8' ' ?i' B8 ;' #?' (=# i?;' i?C;' >' ; ' = ' #B ' ?#B ;' ' =?;' = ' ▩▩ 'ΕΒ ;'#B ' ?=# ' ;"' #?' #B ' K ; L # ?=' DC 8 =A' = 'CKB 8 =A' ?i' #B ' O ΑΒ#' ?i' =>' K; =# @ ' Ε #B?C# O @ =@ ' ?i' B ' * * # i' i" ' = ' ?D# = ' ΕΒ 8 '#B '@?<K8 # = ' = ' B' i ' ?i'#B ;'# ;'< ' = 'ΕΒ i ' ? ' #B ' ;?i') ▩▩ 'ΕΒ ;'#B '+ @?=' Q ; i# < =' #B ="' <? # (8 ' = ' ?D# ;'# 2 8" ' i; < =' ?@@CK> ;' = iC▩▩ = ' =' 8 " Ε > ' 8"' < # ;' = '?@@8i?=' @@?8i?=' =:>'&>i#?C=' ?D ;'# 2 8" ' i; < =' ?i'#B ' i ' ?i'#B ;' ' ?i' #B ' ;?i' ▩▩ ' ##?C;'#B '#B 'J # ;' < =' ?i'#B ' i ' ; i# ;'< # ?=' i?C;' K; =# @ ' i?;' 8 i ' # ; < ' =>'K; =# @ ' i?;' 8 i ' # ; < ' #B =' ?i'#B ' ; i## "







' ' '*=;' '

%*$* %* ' =' ! ?C; ' ?!' J < '
%C;= ;' D = #' " ;

U ' ' (&) ' 0 +' E #B' @ ' = '
?= =#' ?!' #B ' & # # ' ?!' / ;8 [+?' # !>' ; '
KK;? ' = ' B ; D>' # ! ' KK;? ' = 'K ;9'
K #C 8>' ?=! ;< ' #B ' #E?' @# ' ?!' / ; >' ?C=L
@ 8' < ' = ' A; =# 'D>'#B <' ='! ?C; ' ?!'J < '
%C;= ;' D = #' = ' ;;?;') 8 ! < " ;⫴ =# ?=L
=A' #B #' 8D #'#B '8 'J < '%C;= ;'B =A'E #B'
' <C@B' 8 D?C;' K = ' = ' FK =! ' ## = ' #?' #B '
!8 '' = ' ;#' ?!' < " =A' ?!' D = # ' < ;;?;'A8 ! '
Q@'0 = ' #B ' 8 " ' @C; ?C ' E?;"' ?!' #B ' ! = #' ?!'
E?? 4 =?#' !?;< ;8>'K; @# ! 'D>' =>'= # ' ='#B '
?C=#;>' = 'EB @B' ;#' = ' #; '+? '=?E > '
' =# ;! ;' ?;' =@;? B' CK?=' =>'?#B ;'?!'#B '%; L
< ='D =A' ' < =C! @#?;>' D>' # 8! ' = ' B =A'
K @ D8>'! #' CK' = ' =# ; '#?'#B F ;@ ! '?!'B '
! ' %; ' = ' < =C! @#?;>' @?=!?;<'#?'#B '! 9'
; 8' @# ' ?!'9/ ;8 < =#' ?= =# ?= ' = ' ?C=@ 8'
< '!?;' =@?C; A < =#'?!' =C! @#?; ' ;9'
#B 8 !' #B ' $; AB# ' ?!' & =DC;AB' B ' #' #B ;'
CEK' B = ' E #B?C#' =>'E ;; = ' ?;' C#B?; #>' %=9'
;CK# ' = ' + @B ;A ' #B ' ! ' J < '%C;= ;'
B '%; ' = ' =C! @#?;>' = ' ! ! ' CK?=' = '
E >'# " ='<? #'?!' B '%?C88 ' = '?#B ;' < # ; 8 '
E #B' EB @B' B ' E;?CAB#' = '%B ; !?; ' BC<D8>'
(CKK8 @ # =A' #B #' #B ' '0?; ' E?8 ' !; '#B '

'J < '%C;= ;' !;?<' =>'!C;#B ;'#;?CD8 'CK?='
#B ' @@?C=#' ?!' B ' ' @ 88 =A' @?=!?;<' #?' #B '
! ; 8' @# ' < ' = =#' < =C! @#?; ' = '?; ;'
#B '* ' %?C88 ' = '?#B ;' #?' D ' 8 ; 'D @"' #?'
B <' ?=!?;<' #?' #B ' EB @B' / # # ?=' #B ' ! '
0?; ' ?!' / ; >' ?C=@ 8' 'K;?B D #' = ' L
@B ;A '#B ' 2 ; AB# ' ?!' & =DC;AB' ?;' =>' ?#B ;'
K ; ?= '#?' #;?CD8 '?;' <?8 !#'#B '! 'J < 9%C;= ;'0
='#B ' F ;@ ! '?!' B '%; ' D? < =# ?=T ' ; '
?; = '#B '! '+ @?=' = '2 ; AB# ' ?;' =>'?#B ;'
K ; ?= 'EB?' B '#B ' ! '%?C88 ' < 'E?;"' = '
?#B ;' < # ; 8 '#?' D ' 8 ; D @"' #?' B <' '#B '
! ' @#' C= ;' #B ' B = ' = ' CD!@; K# ?=' ?!' (P
8 F⫴P) D ?=' 8 ;"' #?' #B ' /; >' ?C=@ 8' ?!' #B '
' #B ' #E 8 #B' >'?!' (K# <D ;' = '#B?C = '
(F' BC= ; ' = ' (=#>' AB#' =' #! 8! ' <?; '
!C88>' D ; ' ' 8!?' D>' =?#B ;' @#'; 8 # '#?'#B '
!?;< ;'?!'#B ' # '#B '#B; ## =#B' >'?!'J =C ;>'
= '#B?C! = ' (F' BC= ; ' & AB#>'! '> ; '#B '
! '0?; '?!'/ ; >' ?C=@ 8' '! = '#B #'#B '! '
J < '%C;= ;' ?CAB#'#?' D ' =@?C; A ' =' B '! '
;#' = 'E?;"' = '#B ; !?; ' '! ; @#8>' + @B ;A '
#B ' + @?=' = '*=@?;K?; # ?=' ?!' #B ' 2 ; AB# ' ?!'
& =DC;AB' = ' 88' ?#B ; ' !;?<' #;?CD8 =A' ?;' <?9'
8 !# =A' #B ' ! 'J < '%C;= ;' ='B ' ;#' = 'E?;"'
'@?=# = ' ='#B ' @# '?!' / ; >' ?C=@ 8' '#B >'E 88'
D ' =!E ; D8 ' CK?='#B ;' K ;; 8' = '! ; ;'+ L
@B ;A ' 88' &F @C# ?='CK?=' =>'+ @; #'K;?K?= '
A = #' B <' D !?; '#B ' 8 '?!'& =DC;AB'CK?='
@@?C=#'?!'B ' <K8?>< =#' = 'K ;# @C8 ;8>' ='8 # '
+ @; #'K;?=?C=@ 'D>'#B '! ' 8 '!>= =A'B <

='#E =#>'K?C= ' !# ;8 =A'K;?@C; 'D>'#B ' :+"48W
; #?;'! @ 8'?!'& =DC;AB' # ' 8 ' ?C;#'?;'+ L
@?=' = ' *=@?;K?; # ?=' !?; ' = ' 88' #B #'B '?;'
< >' !?88?E' #B ; CK?=' '#B '! ' @#' ?!' / ; >'
?C=@ 8' ?!'#B ' # '!?; ' 8!?' ='#! 8! ' <?; '
!C88>' D ; ' = '#B #' ='#B 'B 88' B ' ;# @8
0@8 C! ' @ ;= #C; ' = '?#B ; '@?=# = ⫴ ='9#B '!?;9'
'#E?' @#' = ' =>'?#B ;' @#' < ' ='! ?C; '
?!'#B '! 'J < '%C;= ;' = =#'#B 'K; < ! ' !# ;'
#B '!?;<' ; '# =?;' ?!'#B '!?; '#E?' @#' ='88'
K?>=#' = '(# #C# ' = ' ; = '#B #'#B 'K; =#'
! @ # ?=' = ' ?=! ;< # ?=' ?!'#B '! < =' ' = '
88 88' D ' 8!' 8 ' !! @#C 8' = ' C!! @ =#' '!'#B '
!?; ' @#' 2 ;' #'8 =#B'B ; ' =! ;#' + K =@ =A'
D>'#B ;' K; =# ' E #B'#B 'A = ; 8 #>'B ; ?!' = ' '
!'#B ' B 88' @#' E ; ' B ; ' =! ;#' = ' ! ##' ?C='
0 " ' B ' [>' E #B' @ ' = ' @?=! =#' !?; '
2 88') ; =#' = ' ; = '#B #'#B '! ' J < '
%C;= ;' = ' B ' !B 88' B '#B '!C88' !; ' 8 D ;#>'
, ;@ ! ' = ' E?;"' B ' ;#' Q' %; ' E #B ='#B '
%?C=' ?!' & =DC;AB' =' 88'# < '@?< =A' = 'B ; L
D>' + @B ;A ' 88'#B '+ @?= '#B ;'?!! @ ;' = ' 88'
?#B ;' K ; ?= 'EB #!?< ;'!;?<'#;?CD8 ; A'?;' <?9' 0
8 !# =A' B <' ='#B ' F ;@ ! '?!'B '%; ' = '#B #'
#B '! '#E?' @#' !B 88' D '!C!! @ =#' ; AB#'#?'B <'
#?' F ;@ ! 'B '! '%; ' =' 88'# < '@?< =A' = '
?; = '#B #'#B ;' K; =#'!B 88' D ' =' C!! @ =#'
2 ;; = '#?'#B ' 8 ;"'?!' A # ; ' = 'B '+ KC#'
#?'&F# = ' = ' FK ' =' @#'?!'/ ;8 < =#'B ; L
CK?=' =' C '!?;<6

⫴ %' (8 ?'JC; ' C C 8 D #

' ' (& *) &' 0 +' ?= ; =A'#B #' U!'
#B ; ' ; ' ; 88' @#'Q'?#B ; 'K #'Q' < ' ='#B '
(?=' ?!' / ;8 < =#' =' ! ?C; '?!'K ;# @C8 ;'K ;9'
?' ' E #B?C#' @ 88 =A' ?;' B ; =A' ?!' C@B' ' < >'
D '#B ;D>' ?=@ ;= 'Q'K; C A 5' %B ; !?; 9B '
#@' E #B' @ 'Q' @?= =#' ?!'#B '& # # '?!'
/ ;8 <P' (# #C# 'Q'?; = '#B #' 88' C@B'K ;# @C8 ;'
@#'Q'?#B ; 'K #' =' < == ;'!?; 4' B 88'=?#'K; L
C A ' =>' %B; 'K ;#>'?!'#B ;'8 E!C88' ; AB# 4' =?;'
?!'#B ;' @# ?= 'Q' ! =@ '@?<K # =#' #B ;CKD=4'
D !?; '#B ' < " =A' ?!'#B ' 'K ;# @C8 ;' @# '5
= '#B 'O?; '?!' (?=' = ' 88' ?#B ;' C A '
E #B ='#B ' 1 =A ?< 4' B 88'D '?D8 A '#?' C A '
D #E F#' K ;# ' @@?; =A' #?' #B ;' ; 88' ; AB# '
= =A' =' #B ;' K ; ?= ' D !?; '#B ' < " =A'?!'
#B ' 'Q @# '5 88' EB @B' ; ' B ;D>' FK?= 'Q'
@8 ; '#?' B 'D =' < '(8 ?'JC; '@C C 8 D #' 0

0% &' 1*) (' J&(%*&' 8 ;'#B ' / ;8 ; 9' 43'"6' 5@'
< =#' @C;; =#' = ' ?C;= '#B ' < '#?'#B '! =#'
>'?!' ? <D ;'= F#'#?'@?< '?; = =A' 88' < <L
D ; '⫴?!' / ;8 < =#' ?D8 < =' ?<< ! ?= ; '!?;'
(B>; ' = ' ;CAB ' = ⫴ 88' #B ; 'B =A' =# ; #'
#?' ## = ' #' & =DC;AB' #B #' >' #' # =' ' @8? "'
= '#B #'#B ;' D ' =?' = E' 8 @# ?= ' =' B>; ' ?;'
D;CAB ' F@ K#' CK?='#B ' #B'?!' =>'?!'#B ' K; L
=#' ?<< ! ?= ; '7

ʻ D4

ʻ ʻ ʻ ʻ

'ʻ 3$ "% ʻ # %*3

m

%(+ +& ($ % & *%%&&

* %&+ + // * %&+ % & & %* $ &(% %&(

0+& %&+* ') / *0 , , *, 4+ 0 , , , *,

)% Q 25'15 < / &)+66 I+6 Q <<+ 6 ./ & 0+, & 1)+ ,+*6 + &)+66, + 0* .+ & 6

%1'9I>D53E &%? &' +, <* @ 10& *

6 *.

1'15DI%

$ %

%& ' (+,E 6 + <*, %& 1 * +,J+*, %& *F +,'+?0 %& 1 * +,' .+ . %& 1 * +, & * . %& =+*.5+, %& 1 * =+,& >

%& =*.+,5 -- * + %& =*.+,)+ +. %& =*.+,2*>8 + %& =*.+,)+ +. %& =*.+,5 -- * + %& =*.+,2*>8 + %& =*.+,)+ +. %& =*.+, 7 * %& =*.+,= 6 0+

>552I1

+& . %E 0&>*+ G . %E 0&)6</ +,) . %& =*.+, 7 *

>D552:1

+& E +& . * + +,'+?& *)& * E (*+7 % M: ,, 6E 6 + E 0&>*+ G *+7 J -& * 5+/ * 6 &

%E1)+66, + 0* ./ &01 &)+6H 6 ? * .?& *+,& 6+*,+ +?

%1 ?< ?= #?#B ?< < #L # '?!& # #

%1'9I>D53E &%? &. +,<* 9k78 Q10& * %& 1 +,& C 0.+6)+ . *H 0& 7 * < * + +,& * 6/ * * - , * / ,*+6 & 0/ 096<+ . & '? (+6 6 / ,+* & - * 6 +/ & < / - *7 - . & <+ & . +& *)F . * + 9/ 05 +7 . +. 8+ 6 & 0+, & 1 ,+* +6 6 * . 0 G< . & . * 0 & 6 +, & * .8+ 6 6 +6 +, 7 * 1 / <<+ .,+* 6 .0 0 &

< / -,, *+,& I + %& * ,+* %& 1 .+ +6 Q <<+ & < * + , 6 6 .78%& *F +,'+?0 %& *F +, *+5%& 1 * +,)* ,++*. . * . +* + * =+& J+*, * ' .+ .%& R -+ +,% */ %& =+*.5+, Q)*6 -& * +& . +, . 6)+-(/ 6 +, 2*6 + * * -(E+6 +, +D? * * : 6 -+ + 0 *+,E *. %& = *.+,= 6 0+6 %&+6 '* 66+ .+,5 -- * + ' - J+*/ +,)+D+. * E) 6</ D+,) . * .+& ' 6< *+, 7 * * +& E *)& * E (: D 6 E 6D + 6 J . *5+/ * 6 &+& . * +)+66 + * ,+* 3 0+? +& *)+66, + *,+* &%+? +, * E 0&>*+ . 4 G . * < D %+/)+66 +, & 1 '+07 .3* , L <+? * ? .))+66, + +,& 6 +* & * +, & 6 %& * / 0 D? %&* I+/ 6 %&*)+66, 2% * 5+6 & * .)+6 , + *,+6 > *0& %+ 6 1. / *0& & 6 . & , 6++ ,+* & , . .& * , * -& 6 & 2 & (, .+ (-&)+ *, .07 -&+*. * : ** . .9 * - + & / - , *,+* <*+ - 0 & - * . 6 ./ & 1 : &<+? * + & 6 <+ 9,+*6 + +) / ,+* & 6 . - * -&< * + * * < - .+ , = / * +* *0 -& * * * . <* + * +* , & * , * /) ./ & * ? ** . & 9& D - , : &<+? * +& 6 +07 -&+*. * & & ,, .* F ,+* < 0 & C 0.+6 <+, *+,. , - <+ 6 *0 & * +, ,,+** 0 97 + +* ,* %)) + . ,+* 6 (0 ,, - & = 7 +, & ,,+*- * . <<+ ./ & 1 .6 , * 0 . <+, 0 +, & 6 & & & & (, .+ ( )+ *, & & 96<+ + +? .+ / & 1 / 0+ ** *+,) , .+& * < / - . / /*+ 0& .? & <+? * + & 6 &) , +, 96<+* G0 - ?& -& 6 5 F * 0 +, & 1 / ,+* & . +?& -& & * .8+ * .+) .)+ 7 & 6 .3 * 8 + - .+ . * + & * & 0 * F . 9 - 6/ + & 6 & . -& *0 +, & * , ?& -& 6)+ . - +& *7 - .& < / - 0++.+, & C 0

*' +& ' ' 6 &+ ' ' & ' 9 (' .' G . *' ' 6 &+ ' + 0 *'+,' & ' 9 (' & ' ,+ ' / 0') .' +' << *' / ,+*' & ')+6 6 ' ' .' -' & 6, 7 ' ',J+D+?

Y

(,'J?B='+ 89' < B?>' = 'B ' ?= ' = @#' #B < 8 '#?' 8 'K @ D&>7

9' *' +& ' ' 6 &+ ' +,' & ' 9 (' / ' & ' +*' & *+,'> .' .' -' 6 , '7<+ ' 6 ' ?+*.'+,'&+ + *' ' ' 3 6 ' +' 7 ' < - / ' .' ? &' ' /6 ,, + ' +' & '<* '3+7 * 6 ' ? . *' C 0' : 6'Q'T ' * ' .' +')+6< *' .' , '6 ' , '& ,+*' & ' 1 ' 2*' & *')+6 6 ' +*' -&'< * + ' ' , ' / '96< + .' / ' & ' .' C 0' Q' T ' ' & ' 3+7 * H 6 ' +,' & ' C 0.+6 ' ,+*' & ' 6 ' ?& + 7 *' 9' , ' / ') .' +*') .' ,+*' & ' ,, -' 9 ' ? ' ?& * +,'9' & 7 ' 6 / ' -* 7 .' & *' <* ' ' <* -' +,' & ')+6 6 ' +,' 1 ' ' 1. / *0&' & ' &* &' ' ' +,' <* ' 9U' 78@ 1 0& ' 6 ' *

-' / -* / *' +' ' 6 &+

9' G . *' ' . 6 &+ ' + 0 *'+,' & '9 (' / ' & ' 6+*' & *+,' > .' .' 1 -' 6 ' , '7<+ ' 6 ' ?+*-8+,'&+ + *' ' ' 3 H 6 ' +' 7 ' < - / ' .' ? &' ' /6 , + ' +' & '<* ' 3+7 * 6 ' ? . *' C 0' : D 6' .' T ' * ' .' ')+6< *' .' &E' 6 ' D' / ,+*' & ' 1 ' +*' & *')+6 6 ' +*' , -&' < * + ' ' 9& ' / ' 6< + .' / ' & ' .' C 0' T ' ' & ' 3+7 * 6 '+,' & 'C 0.+6 ',+*' & ' 6 ' ?& ' ,+ 7 *' 9' , ' / ') .' +*') .' ,+*' & ' ,, -' 9 ' ? ' ?& *+,' 9' & 7 ' /,-* 7 .' & *' <* ' 9 ' <* -' +,' & ')+6 6 ' +,' 1 ' ' 1. / *0&' & ' &* &' ' ' +,' <* ' 9\' 78@ 1 0& ' ' *

-' / +*, 6@ ' ' 6 &+

2 ;:, = '#?'#B ' 0 ;' ,?!' ;8 ' 9' #?='Q' #B ;' ,' #?' @C;'#B ' ? # '?!' #; @"

%E 1')+6 6 '+,' & '1 '+,' & 'C 0.+6 ' '+ ' & */ ' 3 7 ' +*. *' .' ? ** .' +' & ' = *.' +,') * + ' ' . ,,' 6 '5+,' ' 3 *7 '+*' E 0&'C . ' '> * '+*' ' '+,' & 6' +' - * ' & '-+ , '+,') ** -(' .' +' S', ,< -' < * + ' .' +'* , ' .')+6 6 .' & ', , / '6 '? & ' &' 8 * . - + '+,') ** -(' +' & ' , -',+* .')+ ,+*6 ' +' ' -' +,' & '1 '6 . '◁

-, / +*' >2 1*

@# ='!' ?;' K!'#B '0 >' "? 8 =

I 1 I %' & ' << - + '07 ' ' .'<* .' 4' & ')+6H 6 '+,' 1 '>' ' - *' = . ' 5+, & ' & ? 0' %& ' + ? & . 0' & ' & '< + *'& . '& *' =<.0 0' ' & ') +0 ' .' &+ , ' +,' 5+, '/+ &'*+// .' & ' 6 '+,' & ' ' % 6 ' .' -+ . * / ' +R6 ' +,' 6+ ' (' ? ' .' 6 ' . ' .' < < * ' /* ' .' . *+ .' .' ,- *- ' '/ .' , ' +' & ' < + *' .' & *')& .* ' +' '+ ' A ' +?'+,' ' 7 * ' + . * ' & 7 ' -+6 ' + ' --+6< .' ? &' +6 ')+ * ' 6 ' .' - .' .' . *+ .' '?++.' .' - +, *' / + 0 0' +' '< + *' .' ? * ' +' , .' ? &' / & ' /* 6 / ' .' /* -& ' +,' * ' P : & -&' & ' < + *' ?+ .' ? 0 ' & 7 ' , * & .' ,+*' '< / - ' , Z' / '& 7 ' +' - .' /*+-(' .' . *+ .' & ' ?&+D' + 0' , ' .' < ' * ' .' < 0' .' . + .' '0* '. ,'+,' 3*+? ' 0'#)+6 ' G' .8 - ' +' ' 7 * ')+ . * / ' 7 ' 9 ' ,+ ' 6 -&' & ' ,+ * ' +*' , , ' 6 ' ? * ' -+ , ' / , .' ') 0' ,+*' 1 0&' +*' '. ' +0 & *' +' & ' & '< + *' .' & *' 6 *+ ' , 6 ' +,')& .* ' * ' & */ '* .' .' * . * .' 6 , * / '%& ',+* .' ?++.' .' - +, * ' / 0' '7 ' -+ . * / '< * ' +,' & ' 6 ' * 6 . *' +,' ' - ' , ' ? . *' 0* ' / *. ' +,' . / '?& -&' & ' < + *' & . ' +' ? ' +' < ' / ' / ' & ' , .' ?++.' .' 0' & ' + *' .')& P& ' * ' . ' ' . 0 *' +,' & *' = 7 ',*+6' & ')+ * ' < +< ' /+ '?&+' .+ ' &* ' +' / 6 ' & ' < + * ' &+ , ' .' / 0' 9 -+ * .0 .' / ' & ' G 6< '+,' + & * ' * ' * ,+7 .' %+') ' .' . , *+ ' ' ' * 6 . *' +,' & ' ,+* .' ?++.' ,+*' , '+? '<* 7 '# ' $ ' ,' & ' &+ +* / ' 0' +,' 1 ' P+,'?&+, ' 8 , - ' & '< + *' ', '< *,? . .Z ? * ' +' +

<*+ -' D'< - / '< * + ',*+6' '7 + - '+<<* , + ' .' -*+ -&6 ' 7<+ ' & *' <*+< * ' .' %& * ,+*' E 6 / ')* 7 0' & '3* - ' .' & ' &+ +* / ' 0' +,' & ' 1 ' ?+ .' & 7 ' < ' .')+6< , + ' + ' & ' < + *' .' 6 *+ ', 6 ' +,')& .* ' .' +' 2*. *' <* '< 6 ' .' , - + ' +' & ' + *' +,' ?& ' +, ' .' . 6 .0 ' , '& ' , .' / '- 0' +,' & ' , .' ?++.' .',<+ 0' +,' & ')+6 ' .' '+*. *' & * <' +' <<+ ',+ 6 '< *,+ '?&+' / '9(, ' +'7, ' .' 7 ' & ' , 6 ' ' & ' 0& ' +,' +6 '+,' & '6 6 / * '+,' & 'E+ +* / '6 0' +' / ' <<+ .' .' +' * <+*' +' & '1 '+*' -&' '6 ' / '96<+? * .' ' & ' 6 ' +'0* ' <* - < ' .' +*. *' < 6 ' +' & '< + *' --+*. ' 0 ' .' & ' & '&+ +* / ' 0' 6 0& ' (? ' / ' < .' +' . -& *0 ' '< * + ',*+6', * & *' + / 0' - 0' +*' 6 . 0' ? &' & ' .' ?++.' .' - +, * ' .',*+6' *+ / ' * ' .' 8 * 0' & '< + *' +*')& .* ' ' & *' < * + '+*' $0++. ' .' T*. ' & '=+*. '+*. *' & * '+' / '< / - ' * .' .' 9 6 ' & ' G' . ' & * , *' / ' & '* . * ' ' /+ &')& *-&' .' 6 0' &+ , '? & ' & '< *+-&' %& ')+ * ' < +< '6 0& '/ ' .7 * .' & *.,' : E9) E' < + ' .' . * ' & *+,' / 0' ' &' & *.' .')+ . * .' / ' & ' .')+6 '' 6 '+,' 1 '%& '& 7 ' ' -& *0 .' .' & */ ' ' -& *0 ' '< * +& ',*+6') 0' + ' 6 . 0' , * & *' ? &' & ' /+7 ' 6 + .' ?++.' .' - +, * ' 1G- <' / ' +*. *' +,' 3 * ' 8+*' \('+*' & ')+6 6 . *' ')& ,, 'QN*' & ' 6 ',+*' & ' , ' +,' & '< / - ' ' (? ' ' -& *0 ' '< * + ',*+6' *+ / 0' +*' 8 * 0' & '< + *' .' & *')& .* ' ' & *' < * + ' .'0++.

%E 1' ,, * ' ' '+,' '9\' 78\' 1 0& ' ' *

%E 1')+6 6 '+,' 1 ' '+ ' * F * ' & ' 7 * L' & ** ,') *('7<+ '* - <'+,' & ' -'+,' & '1 ',+*' & '96<+, + ' +*. * .' +' / ' < , .' '?& . ' G' 966 . ' +' . H < -&' 9 6 + ' ? . *' & *' & . ' +' & ' * . * ' ' & ' 7 * ' *+-&')& *-& ' .' 0' &+ , ' ' & ' & * ' +' / ' * .'+ ' & '=+*. ' ' '966 . ' , *' . 7 ' *7 - '07 0' .7 * 6 '+,' & ' , * ' . '+,' 6 0' +,' & ')+6 6 , + * ' ,+*' 2*. * 0' & ' .' 96<+, + ' 7<+ ' & ' ,+ * &' . '+,' ' G' ' & '& .' / *0&' +,' & ' & *

d ; ;'#?'D ' CD ?>= '#?' #B ' @# !?;'#B ' *<K # ?CJ

%E 1')+6 6 '+,' 1 ' '+ ' +*. ' .' * F * ' 6 ')* ,++*.' +,' *. 6 ' .' & ' + ' ? & ' ? ',+ *' &+ * ' , *'9 6 + '& *+,'%+'07 ' <' +' E 0&') &- 8 '+,') * + ' & '&+ , ' +,' *. 6 D ' .' ,'7<+ '9 6 K ' & *+,' & ',& '* , ' +'07 '7<' & ' .'&+ , '%& ')+6 6 ' .+ '07 '+*. *' +' '& * .'+*' < * 7 '? &' '%* 6< *' +')& *0' & ' .' 6 ')* ,++*.' .'& ' + ' +' . 7 *' <' & ' 6 '? & ' ? ',+ *' &+ *' ? . *' & '< '+,' * ,+ ' .' ') ('+,' & *' . ,+/ . -' %+' . -' & 6' ' & ' 6 *- ')*+) '+,' & '& .' / *0&' +,' & ' & * ' .'7 & *'8 * . -H + ' ? & ' ?& -&' & ' .' 6 ')* ,++*.' 7 ' .' & *' +' <*+ / ' .' ' -& *0 ' '< * + ' +')+** ,<+ .' ? &' & ' .' 6 ')* ,++*.' .' & ')+6< - ' ' & ' .'&+ , ' +*' +' ,&* &' & 6' ? &' '<*+7 , + ' ? . *' & ' .' < ' +,' %* ,+ ' .' (? '+*. ' & ' .'& * .'+*' < *, 7 ' %+') ' & ' .' 6 ')* ,++*.' +,' *. 6 '%+')+6< *' / ,+*' & ' 1 '+,' & 'C 0.+6 '+*' & ' .')+6 6 ' 7<+ ' & ' &' ' '+,' ' , '? &') * , - + 'Q-' .' 2*. ' & '? ** .' ? &' & ' G - + ' & *+,' .' ' - ' + ' +',+D+?' & * <+ ' +' / '* 0 , * ' ' & '/++('+,' .8+ *

%E 1')+6 6 '+,' 1 ' '+ '07 '? ** .' %+')+ + ' > ,+ *' +'+*. *' +' 6 '+,' & ' . 0' , /*- ' '& ',& ' & ('+' 6 *-&' .' / ' , , 0' +' E 0&') &- *' +,') * + ',+*'<*+, - + '+,' & '+*. *'07 ' / ' & 6' +' & 6' 0 ,' 6 ')* ,++*.'+,' *. 6 '+,' & '. '& *+,

; ;'#?'#B ' J0'?!' ; < 88 =i' #?'A 'CK'B '

$' &(% %&(' ' G@ #

)+66 '+,'&'1 '9'*0 *.' &' . ' : 6'E * + '
&'07 '+/ . - '+' &'<*+- 6 + '+,'1 '+,' &'
 .* /',+,' <* ,' ,'%&' E 7'2*.&.'Q' &*/'
2*. '%&'('+,. ' .')&*-&',C*(?+ '+'/'
* +*.'+'& 6' . -('2*. '&'&*+*'+,'&'6.'
< *+-&'+,C*(?+ '+'-*'&'6'&'<- /'G*-='
+,'/'6 * ' .'<+, , + '+,'&'&+ , .'0++.
=(? '2*. '&'&*+*'+,'?&+,'/+ .'&'-*+',+,'
 -&'/ ' 7'+'S'<+'&'6' .'+'<*,'&'6'
/ ,+*'&'1 '+*'&*)+66 '&'&'6'/'< , .
--+*.0'+=?

9'*0 *.'&'<+ *'-*'&'? 0'+07

%E1')+66 '+,'&'1 'E 7 0')+<,.-*.' .' <<- ' ,7+
 +'37 '/' '+&' 6'&'6 ,*'=,?.'E 6/ ' 6'&'6 '
5<*, 0'%&'7<+ *.' ,'&'? '7 &', '+,'
 <* ' '&'6+: 0'&'? ' ,'/'(')+6<E'+,'<*H
 + '/+'&' 6/*'+,, ' '+* G '+6'+,'&'6'&
+?'<*+-&* *' .'+&*'+6+&*'<-'p?&+, 6'*
&*?,'&'07 ' '+'* G .*3/6'+, .Z?&+'
++(',?'&'('+,'&'(*('+,.+*'9+6'&'(*('+,-*'&'
50*'*+6'&'(*('&'<+*'0+? '&'9
 0' '?&'&' , +, - 1-- ' .'0*/' .'+*'0
H)=7'&'&' , + - .' , ß*'%&'&7*, .'
9+'+*'&'<+*&* .'6-.'&'<+*'+'&' . *
&'?,' 7 '* &* .' 6 -.'&'<+*'+'&' . *
 .' , .'G'&.*'+'&'+-'*&&' , * *
? '+/+' . ' '+' ('? .'&' ,'+,&'&+,'*-'&'
 (' .'&*'+'>* , .'&' , .'&'*7<+' ,'&'
 &' , .' , .' , .' , .' , .' , .'
 (' , .' , .' , .' , .' , .' , .'
 -' , .' , .' , .' , .' , .' , .'
 &+'+*' , .' , .' , .' , .' , .' , .'
 &' , .' , .' , .' , .' , .' , .'
 / , .' , .' , .' , .' , .' , .'
 1 '+*'&*)+66 '%&'&'6'/'< , .'--+*.0'
+'=?

%E1')+66 '+,'&'1 'E 7 0')+ .*.' .' <<- ' -'*=', 7+*'
 +'07 ' ' .'<* ' .'+'&'6'/' .' .'7.'<-'
6 ,*'C*(-++*.'E 6/'5<* 0'%&'?&*'I+
? & . 0'+,'&' ' <*+- 6 + ' 6 '/'&' 0'
+,'&'1 ' ,'-&*0* 0' '<*+'?& +6 7*'+'*+/
 ' 6 *'+'&' ' *'&+, ' ' ' ' .
6+*-+&' .'&6'+'*6+7'?&'&' ' 6'?&'1 0&' '
+&*'? ' &'?+ ' - ' ' .' 0'+'&'++*' '
< *+-& '?&',6'+&*'?&+ '&' 6 - 6 ' '&+ D'
6 *'+'&' + *'&+,' ' ++(',? '&'<++*'/+G'
6 .'&6'+'*6+7'?&'&' ' 6'?&'1 0&' ' .')6H
 +&*'? '&'?+ ' - ' ' .' 0'+'&'++*' '
 '&'6 ' '+'&' ' '&'< ' .' 0'+'&'++*' '
&'?'? 0'+'07'+/ .' -'+'&' ' 1 ' &'*'<*+'
 - 6 K' .'+'&' ' '&'*+'?&' ' &' *+-&' '
.+'<- ' (<'&'( )&*-&' .' ' &'<+<'G- <' '
7*'?' .'%&*'+*' <<- 0'&*=+*.&<'%+'3*' '
&'<+*'&*'<*+-+'.'07',-&'+*.'*Q'.'*-+' '
&* ' '&'%&+' .'(',%&' ' .'&'? 0'+07
9'*0 *.'&'<+ *'-*'&'? ' '+,'1 –

$' &(% %&(' ' G@ #

)+66 '+,'&'1 '9'*0 *.'&' . ' : 6'E * + '
&'07 '+/ . - '+' &'<*+- 6 + '+,'1 '+,' &'
 .* /',+,' <* ,' ,'%&' E 7'2*.&.'Q' &*/'
2*. '%&'('+,. ' .')&*-&',C*(?+ '+'/'
* +*.'+'& 6' . -('2*. '&'&*+*'+,'&'6.'
< *+-&'+,C*(?+ '+'-*'&'6'&'<- /'G*-='
+,'/'6 * ' .'<+, , + '+,'&'&+ , .'0++.
=(? '2*. '&'&*+*'+,'?&+,'/+ .'&'-*+',+,'
 -&'/ ' 7'+'S'<+'&'6' .'+'<*,'&'6'
/ ,+*'&'1 '+*'&*)+66 '&'&'6'/'< , .
--+*.0'+=?

9'*0 *.'&'<+ *'-*'&'? 0'+07

%E1')+66 '+,'&'1 'E 7 0')+ .*.' .' <<- ' ,7+
 +'37 '/' '+&' 6'&'6 ,*'=,?.'E 6/ ' 6'&'6 '
5<*, 0'%&'7<+ *.' ,'&'? ' 7 &', '+,'
 <* ' '&'6+: 0'&'? ' ,'/'(')+6<E'+,'<*H
 + '/+'&' 6/*'+,, ' '+* G '+6'+,'&'6'&
+?'<*+-&* *' .'+&*'+6+&*'<-'p?&+, 6'*
&*?,'&'07 ' '+'* G .*3/6'+, .Z?&+'
++(',?'&'('+,'&'(*('+,.+*'9+6'&'(*('+,-*'&'
50*'*+6'&'(*('&'<+*'0+? '&'9
 0' '?&'&' , +, - 1-- ' .'0*/' .'+*'0
H)=7'&'&' , + - .' , ß*'%&'&7*, .'
9+'+*'&'<+*&* .'6-.'&'<+*'+'&' . *
&'?,' 7 '* &* .' 6 -.'&'<+*'+'&' . *
 .' , .'G'&.*'+'&'+-'*&&' , * *
? '+/+' . ' '+' ('? .'&' ,'+,&'&+,'*-'&'
 (' .'&*'+'>* , .'&' , .'&'*7<+' ,'&'
 &' , .' , .' , .' , .' , .' , .'
 (' , .' , .' , .' , .' , .' , .'
 -' , .' , .' , .' , .' , .' , .'
 &+'+*' , .' , .' , .' , .' , .' , .'
 &' , .' , .' , .' , .' , .' , .'
 / , .' , .' , .' , .' , .' , .'
 1 '+*'&*)+66 '%&'&'6'/'< , .'--+*.0'
+'=?

%E1')+66 '+,'&'1 'E 7 0')+ .*.' .' <<- ' -'*=', 7+*'
 +'07 ' ' .'<* ' .'+'&'6'/' .' .'7.'<-'
6 ,*'C*(-++*.'E 6/'5<* 0'%&'?&*'I+
? & . 0'+,'&' ' <*+- 6 + ' 6 '/'&' 0'
+,'&'1 ' ,'-&*0* 0' '<*+'?& +6 7*'+'*+/
 ' 6 *'+'&' ' *'&+, ' ' ' ' .
6+*-+&' .'&6'+'*6+7'?&'&' ' 6'?&'1 0&' '
+&*'? ' &'?+ ' - ' ' .' 0'+'&'++*' '
< *+-& '?&',6'+&*'?&+ '&' 6 - 6 ' '&+ D'
6 *'+'&' + *'&+,' ' ++(',? '&'<++*'/+G'
6 .'&6'+'*6+7'?&'&' ' 6'?&'1 0&' ' .')6H
 +&*'? '&'?+ ' - ' ' .' 0'+'&'++*' '
 '&'6 ' '+'&' ' '&'< ' .' 0'+'&'++*' '
&'?'? 0'+'07'+/ .' -'+'&' ' 1 ' &'*'<*+'
 - 6 K' .'+'&' ' '&'*+'?&' ' &' *+-&' '
.+'<- ' (<'&'( )&*-&' .' ' &'<+<'G- <' '
7*'?' .'%&*'+*' <<- 0'&*=+*.&<'%+'3*' '
&'<+*'&*'<*+-+'.'07',-&'+*.'*Q'.'*-+' '
&* ' '&'%&+' .'(',%&' ' .'&'? 0'+07
9'*0 *.'&'<+ *'-*'&'? ' '+,'1 –

I 1 I %' & ' <<- + '07 ' .'<* ' .'+'&' ' '1.4' & ? 0
1&**' ' ' ' '

+/ . - + <*+- 6 + +,& 1 +,& &* &+,
<* ,%& E 7 2*. .& */ 2*. & <++*
/+G 6+* - + & .+& * & 0 / + 0 0 +& (*(+/
* , +* . . , 2*. & & * +* +,& < *+-& + - *
& . ' 7 . < - / G *- , +,&
6 , * . <+, , + +,& &+ , .0++. .) -
< * + & & * , *+,, * 7 + - +& 6 & < *
,+ .0++. %& E 7 2*. . & */ 2*. &
& * +* ?&+, /+ . & , < * + 7 + S D<+ .
- * & 6 D & / <* , . / ,+* & 1 +* & *
)+66 & & 6 / < & . --+*. 0 + = ?

@# =! ?; ?! 0 ?8?= 8 #; >

I 1 I %& < - + 0 7 . <* . +& &)+6
6 +,& 1 +,& & C 0.+6 / = 7)+ +
5 * & ? 0 %& ?& * & < + * / 0 +,, - *
C 0 6 *6 & ? +1 0 . 2- +/ * , .
, * & & & * - +,& 2* 0 +?C 0 +,& 1 0 . . .
6 ' - * + ?& * +,& & 5+6) &+ -(
, &? * 2*. . + .+? & & *6 . +* * +
& ** < - 7 & / + %& < + * +/ . - + &
. +*. * . & / 0 0 +,' - 6 / * , * * +
'* 6,* ?& * & ? , . , 6 7 . . & < H
+ * -+6 0 & * & 6+/ / 0 & * 6 . .
&* +(& 6 . . . 7 * 6 , *-& & &+ , .
. - * . ,& & ,+ . & 6 & ?+ . * & 6 < -
T <+ & < + * ? - , + /,-+ .& 6 , ,+,
6 . & * , * . . ,-+7 * & 6 , +& & 0* +,&
<Q-)&+ , 0 * & * +/ & * <*,+ * & +G<+, & 6
, , + & , * +,& & * / : & * <+ & & 0* . .
96<* + & 6 ? & & *)+6+ <*,+ &+ , ?& * & & &
-+ +? . & , ,+ * +* , 7+ 6+ & / 0+< +& & 0*
<* 8 . - +,& & & .& S *. +,& , . & < + *
& R 0 + + - , + + * <* , & & . -+ . + +
8 . - * + ? . 0 & * ? < + ? ** . &
96<* + 6 > ?& . . * ,,+ & h? 7+&6 6,4+,, *
6 . / & 6 , + & . 0* + - * & 6 ,*+6 &
* // . . & & -+ + 7 < - / ? & & +?
, 6 ? &+* 0 7 0 +,, - + . & & & -+ H
* - . 7 * . , 6< * 8 . . , , & &*+ 0& & + 0 96H
<* + 6 . %& * ,+* E 6 /)* 7 0 %& ?+ . 3*
? ** . + & 0* +,' * 6,* + & < +< *
& * & 6 . << - + / * : & .& / 0)+ . * .
/ & .)+66 +,& 1 %& & 7 3 7 Q 3* .
. & */ 3 7 Q 3* ? ** . + & 0 , * +,' * 6H
,* + +? & . 1 7)+ + 5 * & * +
02 /*+ . ? / & & & * * +<* ,+ 0&

@# *=! ?; ?! 8 =@ +?CA8

I 1 I %& < - + 0 7 . <* . +& &)+6
6 +,& 1 / J* - ' +?0 /*+ & * +& & =+*.
+*. 0 + & ? 0 %& ?& * & < + * ? (<
<<* & . / 7 *)+6 * < +< . 96<* ,+ . ? &
& + / &+,' * 6,* ,+* + + & * - , / & & &
< + * 5+6) &+ -(. 0 & & / + 0
6 <* + . & */ & . 0 * .& , . & &
)+ + -& 6 , + . < * , * &+,& & C 0.+6
. + + * * & * +? . * -& < & =+
< , + <<+ . %& *,+* E 6 /)* 7 0 %& ?+ .
+*. & 6 + / ', & * , * &+,& . %+ / &
+3* ? ** . + & 0* +,' * 6,* ,+* & ,, -
. + +?& 6 & * ,)+ . -,+* < , 0 , * &+,&
C 0.+6 & . << - + / * : & -& / 0)+
, . * . / & .)+66 +,& 1 %& & 7 2*. .
. & */ 2*. & < + * + / , & * .
3* & 6 , + 0+ , * &+,& C 0.+6 %& < + J
- 0 . +/ .0 0 & 6 , + . < * + +,& C 0
.+6 ? & . , * & = / * + . & * +

* * + & C 0.+6 F, + < , , * & & *+, + &
C 0.+6 +,1 0 . +* 9* . ? . * & , .0 +,
%&+ .6 *(,-+

J2==2 : 1 & * +,& / .07 / . . K
J* - ' +?0

g * J* - ' +?0 >*+ & * + & =+*. + *. 0 +
<* + * ? & & + / &+,' * 6,* ,,+*, 6 (&
)+66 +,&)+ 7 + +,1 +,& C 0.+6 +,,
-+ . > & * +*. - +,& . & T,* 00 . +,
d , 0 ' . +*. 6 +/ / * . + < ,
, * &+,& C 0.+6 <+ 6 3* 0 & /+ . ? . *
?* %& * ,+* : 6 +/ / /+ . . +/ , = (g
/ & * <* , > . . +/ .0 6 + + + . < * , * &+,
& C 0.+6 ? & . , ?W 6 & *
, * &+,& . %+D/ & . + * * -(+ & 6
. & g & + < , + & C 0.+6 +,1 0 . .
g* . ? . * & < +, %&+ . 6 *(- +,
, 0 + / < . / 6 + &)+ 7 + +,1 +*
& & <<+ . ,+* & 6+* - * & 6)+ Q
)+ , & * <* , / * 0 , * & /++(+,)+ 7+ . 8
/++(+,)+ , . , + +* +Z 8 .0 /++( )+6H
< . . ' - * . +& 7 & * * &+, . -* +,
+,& 8 .0 & *+,9 *<+ . +%& = * +,&+*<& 0+
, G . . + & * + , * 6 < , & ,* <+ , +*6
,, * .)+ , <*+*
9 ? ?& *+, P?* / : 6 7 ?* * 1. H
/ *0&Z 9 & 7 /,-* 7 . * <* , ' 6,* &
1 7 & . +, @ 78 1 0& * > ,+* & *
? , _ +& G? +,& > * - 0& <*+7 , +,& ' * 6,*
%+& 9*7 0 . +& 5+6 > & * 5+/ * /* *
6 , 0 * & * . 1 . ? * . 9*7 0 +* * & . .
& ? , _ / 0 , * / & . +& G? - / *
J* - ' +?0 G? ? +e 9*7 0 ? +* 5+6
? 5+e :9 * * ? 1 . ? * . 9*7 0 ? ,

%E 1)+6 +,1 E 7 0)+ . * . << - +
3 7 / : 6 =+* . J+** , * E 6 / * <* 0 %&
&)+6< & ? . * &)+66 . ') < . = 7
)+ + 5 +,& 5 0 6 <<+8 . + / 7 . ? . * &
)+66 . +,& =- . > * + ?* * . + / 6 , * . +
*. . . 0 & ? . *6 E 6 / <<
- 0 + & ,, - , * 6 + %& . 1 ' + & */
3* ? ** . + & 1 * +, ** & * / (< * .
3+7 * + * +,&) , +, * 0 +* & / , - + &
G)+66 . 0 +,, - * %+ . 7 * + & . : 6 =+* .
J+** , * / & +*. * G , * *6 ? & /* . * -+ j
,+ 7<+ & * - < +,& 6 ,+* & D, +,& 3+6<

8> ; = ; < 5 #? #B 0?; $?;; # #

%E 1 3+66 +,1 E 7 0)+ . * . << - +
07 / & 0* +,) *+, E 6 / 5 <* 0 %&
& * . / & 9 & / +,& , . %+? +,) *+, &
, * 6 *6) , . ,+6 <* - . 0 . & + & *
5 7 ?& * & * / ?& - & , . 9 & /
* , , +< . %& * ,+* E 6 /)* 7 0 & * ?+ .
0* ? ** . + , ' . 0 0 , & 6 ,+* ?&) ,, .
+ & * 5 7 ' +? 0 ,+* & , +,& < / + + & <* H
0 , * +* , -& & & << + / N , * ?
3* . + & 0 , * +, * ' & ( ) - ' & , .
<< - + / * : & -& / 0)+ . * . / & , .)+6
6 +,1 %& ' + & */ 3* ? ** . + & <
+ * <* , 0 , * +,) *+, + , , 66 * G - + /
<+ 6 . 0 . ? *. 0 ,+* ,+ 6 -& +,& ' /+7 6 + .
* 7 +,& %+? ? , & , * 6 * 6
) ,

d @# =' ! ?;' I 1 I %' & ' << - + 7 9M ' .'<* .' +' & ')+* '$ / ,+, & ' 6 '+,' 1 ' / ' E 0&') 6</ '+,' & (+ ' & ? 0' + 0' ' A& '?& *' & '< + *' / ' ' -' +,' & ')+6 6 , + *'+,' 6 ',+*' & ' & *' +,' .+ ' .' <<+ .' +' / ' ' . *',+*' , * & 0' .'< 0' + ' ' ,, - '6 ' .'&+*,' +' & ' 1 * '+,' 10 0 + '& '%*++<' ?& -&' & ' + *' '-+ ' ? &' '? 0 ' +' +/ ' / ' & 7 0' & .' +'&+*, ', + ' ,*+6' & 6' / '& '<? ' , *7 ' : 6' 4 -+ ' ' I+7 6 / *' ,' + '+,' & 6' ' / ' .' ? '6 .0 .'0 . 0' %& ' % ' '<+? ' ?& -&' , *' 6 -&' * 7 ' .' G< , '& ' ' ,+ .' +' / ' ' & ' & ** ,,' ' < '+,' J+*, *' & ' - , +. ' ' ,' , S .' / ' & 6' ,*+6' & ' .' -+ ' .' & ', .' & ** ,,' . < '* , , 0' +'. 7 *' & ' .' +'&+*, ' +' & '< + *' 7 '& ' . . - .', , + '? , ' +'<*+7 ' & '&+*, '& ' +? ' E '& ' +?' ,'& ' 8 , ' *7 - '9&+ .' / '* *. . ' .' +'& 7 0' '+ 7'&+*, ', ',+*' *7 - ' /*+ 0&' + 0 '? &' & 6' +', 6+ ') '& ' +? ' I 0&/+ * ' ?&+' (?' & ' &+*, ' .'?&+' * '? 0' +'0+ ' +' J+*, *' +' ' & 6' ,' & ' / '& ' 6 '& '? * ', + ',*+6' & '< + *' .'%& * ,+*' E 6/ ')* 7 0' %& *' =+' ?+ .'3* '? ** .' .')+6 ' 6 , + '%+' & '= *.'+,' -& -('+,' & '9 (' %+' (' .'? ,,' & *' + & '9,' & ',+* .' +' &+*, ' / + 0 ' +' & '< + *'+*' + ' .' ,' ' , ' / ' ,,+ .' / ' & *' ' <+' + ' & ' & '.+ ' / + 0 ' +' & 6' .' *' & ', 6 ' & ' ? * ', + ',*+6' & 6' %& ' & ' & *'=+' 6 '& */ '+*. *' & ' 6 ' +' / '. 7 * .'D< / ' & ' & ** ,,'. < '+,' J+*, *' +*' ' < * + '& 7 ' & *+,' +' & '< + *' +*' & '+*. *' ' & ' .' << - + ' / *' :& -&' / 0')+ . * .' / ' & ' .')+6H 6 '+,' 1 ' %& '.+ '& */ ' 3* ' & '. , *' & *+,' .' & 7 ' &+* S .' .' & */ ' &+* S ' & '= *.'+,' -& -(' %+' (' & '. <+, + ' +,' & '? ,,' ' * *' /+7 ' 6 H + .' .' & '? ,,' ' <+ 0' ,, *6 7 '%& '+*. ' & ' &+*, ' +' / '. 7 * .' <' +' & '< + *' +*' & '+*. *

: E15 ' ' +& ' +6 *7 ' 6 , *' ,')* 6+ .' / 0' -'+,') .' +')+6< *' / ,+*' & ')+66 '+,'1 %+' ,? *' ,+*' & ' +' 07 0' +/ . - ' +' & '<*+- 6 + ' 6 .' / ' &,*' 1 '+,' & 'C 0.+6 '+,' & ' &* &'+,' <* ' ,' -(+? .0 .' & ' & ' & ' +' * .' & ' .'<*+- 6 + ' +*' & ' <* .' ,+*' C 0' : 6' .' T ' * ' ' ' <<+ .' & * ' .' & ' & '?+ .' +'? . * (' +'07 '+/ . - ' / '<* 0',+*' & ', .'C 0'Q' T ' %& *,+*' & ' .')+6H 6 '+,' 1 ' '+ '. <* 7 '' & ' .' +& ' +6 *7 '+,' & ' / , -' .' ' - * ' / ')& *-&'7 -

%E1')+66 '+,' 1 ' '+ '2*. ' & '<+, 6 , *' ' & ' 2*. *' %+? 'E . 0+ ' .')+-(/ 6,< &' ?& ' & ', .' & ' & '< -F '& ' / ' /*+-(' <' , *' & ' 6 '& '-+6 ',*+6' > *? -(' %& ' & ' - *' & '<+ ' /+ ' ?&+' - ** ' & '< -F ' 7 '& '07 ' ' --+ '?& ' & ' (+? ' ' & '/* (/0' <'+,' & ' 6

: E15 ')& * ' .' =7 ' 3+7 * + *' +,' & ' 2*. *',+*' > , '/ 0')& *0 .' / ' '< *, 7 * ' / '+*. *' +,' & '1 '+,' - + U ' & 'C 0.+6 '%+' 07 ' <' .' . 7 *' +' *-& / .' ' 6 / *' & ')+66 .'+,' & ' 3 * + ' ' & '> , '? . *' & '< '+,' * ,+ '& '* , , .' +'07 '+/ . - ' & * +' %& * ,+*' & ')+6*' 6 '+,' 1 ' '+ ' 07 '? ** .' +' E * . '+*' < *, 7 ' %+' < , ' +' & '6 *- ')*+- '+,' E . 0+ ' .')+?< *' ' J ,, ' .' +' . - ' & ' .')& * ' .' 5 / ' .' < ' & 6' +' & '&+6 ' .' (? ' & ' & '<*+& / ' .' . ,' -& *0 ' & '= .0 ' ' & ' .' 6 *- ')*+- ' +')+ 7 *, '+*')+** ,<+ .' ? &' & ' .')& * ' .'+*' '?&+' * 6 & ' '3 *,+ '? &' & 6' +*' , * & '<*+7 , + +' & 6' ? . *' '< '+,' * ,+ ' .', * & *' 2*. ' & ' .' E * . '+*' < *, 7 ' +' < , ' .' +' 5 F *' & ' , * + *' +,, - *' .'

%E1')+66 '+,' & '1 '+,' & 'C 0.+6 'E 7 0' -+ ' ,+*6 ' +' & ') +& '$) .' / ,+*' & 6' 6 ' : -&' 2 C@B' 6 &, *' +,' = &' .' (.'& 6' ,' & '& .' * .' & '<*+- 6 ' + ' 8+ .' / ' & '1 ' .' +/ .' & ' 6 ' E ' ' ' ,? * .' & '& '& .' +' %& * ,+*' & ' .')+6 6 ',, . & '& ' .' ' 6 ' : -&' & .')+ * 7 .' & ' .'<*+' - 6 + ' .'9 - ** .' & ') * , - + ' & *+,' .'%& * ,+*' . <* *7 '& 6'+,'& ' / , -' .' ' - * '& ')& *-&'7 -

%E1' -+ .' ' '+,' '9K'78I'10& ' ' *

%E1')+66 '+,' & '1 '+,' & 'C 0.+6 'E 7 0' -+ ' ,+*6 ' +' & ') +& '$) .' / ,+*' & 6' 6 ' : -&' 6&, *' +,' = &' .' (.'& 6' ,' & '& .' * .' & '<*+- 6 ' + ' 8+ .' / ' & '1 ' .' +/ .' & ' 6 ' E ' ' ' ,? * .' & '& '& .' +' %& * ,+*' & ' .')+6 6 ',, . & '& ' .' ' 6 ' : -&' & .')+ * 7 .' & ' .'<*+' - 6 + ' .'9 - ** .' & ') * , - + ' & *+,' .'%& * ,+*' . <* *7 '& 6'+,'& ' / , -' .' ' - * '& ')& *-&'7 -

%E1')+66 '+,' 1 ' '+ '2*. ' & '<+, 6 , *' ' & ' 2*. *' %+? 'E . 0+ ' .')+-(/ 6,< &' ?& ' & ', .' & ' & '< -F '& ' / ' /*+-(' <' , *' & ' 6 '& '-+6 ',*+6' > *? -(' %& ' & ' - *' & '<+ ' /+ ' ?&+' - ** ' & '< -F ' 7 '& '07 ' ' --+ '?& ' & ' (+? ' ' & '/* (/0' <'+,' & ' 6

: E15 ')& * ' .' =7 ' 3+7 * + *' +,' & ' 2*. *',+*' > , '/ 0')& *0 .' / ' '< *, 7 * ' / '+*. *' +,' & '1 '+,' - + U ' & 'C 0.+6 '%+' 07 ' <' .' . 7 *' +' *-& / .' ' 6 / *' & ')+66 .'+,' & ' 3 * + ' ' & '> , '? . *' & '< '+,' * ,+ '& '* , , .' +'07 '+/ . - ' & * +' %& * ,+*' & ')+6*' 6 '+,' 1 ' '+ ' 07 '? ** .' +' E * . '+*' < *, 7 ' %+' < , ' +' & '6 *- ')*+- '+,' E . 0+ ' .')+?< *' ' J ,, ' .' +' . - ' & ' .')& * ' .' 5 / ' .' < ' & 6' +' & '&+6 ' .' (? ' & ' & '<*+& / ' .' . ,' -& *0 ' & '= .0 ' ' & ' .' 6 *- ')*+- ' +')+ 7 *, '+*')+** ,<+ .' ? &' & ' .')& * ' .'+*' '?&+' * 6 & ' '3 *,+ '? &' & 6' +*' , * & '<*+7 , + +' & 6' ? . *' '< '+,' * ,+ ' .', * & *' 2*. ' & ' .' E * . '+*' < *, 7 ' +' < , ' .' +' 5 F *' & ' , * + *' +,, - *' .'

%E1')+66 '+,' & '1 '+,' & 'C 0.+6 'E 7 0' -+ ' ,+*6 ' +' & ') +& '$) .' / ,+*' & 6' 6 ' : -&' 2 C@B' 6 &, *' +,' = &' .' (.'& 6' ,' & '& .' * .' & '<*+- 6 ' + ' 8+ .' / ' & '1 ' .' +/ .' & ' 6 ' E ' ' ' ,? * .' & '& '& .' +' %& * ,+*' & ' .')+6 6 ',, . & '& ' .' ' 6 ' : -&' & .')+ * 7 .' & ' .'<*+' - 6 + ' .'9 - ** .' & ') * , - + ' & *+,' .'%& * ,+*' . <* *7 '& 6'+,'& ' / , -' .' ' - * '& ')& *-&'7 -

%E1')+66 ' .8+ * .' ' & '6+**+?' ' ' '- + -(

%E1')+66 ' .8+ * .' ' & '6+**+?' ' ' '- + (

%E1' -+ .' ' '+,' '9K'78I'10& ' ' *

%E1' %& *.' ' '+,' '9U'78\'10& ' ' *

%; ;' = =# #? -

9%' ? ' +*. * .' +' / ' 6 ' +' & ' ? . *' +,, - *' .' + . *' ' & '3 *, + '+,' > , '%& ' & '9& D' & 7 ' &* ' 6+ &'< ',*+6' & '1 '9 ') - '& '< ' & '< - ' ' & ' & .'+,' & '1 '+* '+,, - *' ' & *', *7 -

%E1')+66 '+,' 1 ' / 0' ,+*6 .' %& ' 7 * ' ; ;'!?;' = . *' *'. , - ' ' & '+ * ('+,' & '&+*, ' <<+ .' +' & * *,' / ' = 7 .' / ' & ' -'+,' & '1 ' ' & '* ,< - 7', * ' . , - 4U' %& '0* ' ? ** .' +' & ' 7 * ') < ' +' +*. *' & ' , +*, 6 '?&+' *'+ * (.'+'F * *' <+ ' & ' . *'?&+' *' . , - ' ' & '+ * -('+,' & *'&+*, ' ' & '* ,< - 7'.& *

; ;',+*' + 6 '+,' ; < 88 ='

% E1')+66 '+,' 1 ' '+ ' & */ '2*. ' .' 5 F *' , 6 ,')* ,++*.'+,' *. 6 '? & ' ? ',+ *'&+ * ' , *' 9 6 + ' & *+,' +' . 7 *' & '<+, , + ' +,' & '&+ , '+,' *. 6 ' +' E 0&') &- *' +,') * + ' .'3* '? *H * .' +' & ' .'E 0&') &- *'+,') * + ' +' ('<+, , + ' +,' .' - *' & ',.'&+ , '+,' *. 6 ' .' ,' & ' 6 '/ ' * , , .' +' / '. 7 * .' +'& 6' +') ' +0 & *' -&' ' 6/ *' +,' & ', -/ '6 '? . *' & ')+66 .' '& ', ' & (', ',+*' -F 0' & ',.'&+ , ' .'?& '& '+/ ' & ' 6 ' & '& ' 7 ' '0 *.'+,' ? '6 ' & * ' ,+*' - * ' & *+,' .' ,' .'/ ' +') ',+*' & ' , , - '+,' & ', . 0', /* ' +' & ' ,, - ',+*', .

%E1')+66 '+,' & '1 '+,' & 'C 0.+6 'E 7 0' -+ ' ,+*6 ' +' & ') +& '$) .' / ,+*' & 6' 6 ' : -&' 2 C@B' 6 &, *' +,' = &' .' (.'& 6' ,' & '& .' * .' & '<*+- 6 ' + ' 8+ .' / ' & '1 ' .' +/ .' & ' 6 ' E ' ' ' ,? * .' & '& '& .' +' %& * ,+*' & ' .')+6 6 ',, . & '& ' .' ' 6 ' : -&' & .')+ * 7 .' & ' .'<*+' - 6 + ' .'9 - ** .' & ') * , - + ' & *+,' .'%& * ,+*' . <* *7 '& 6'+,'& ' / , -' .' ' - * '& ')& *-&'7 -

%E1')+66 ' .8+ * .' ' & '6+**+?' ' ' '- + -(

%E1')+66 ' .8+ * .' ' & '6+**+?' ' ' '- + (

%E1' -+ .' ' '+,' '9K'78I'10& ' ' *

%E1' %& *.' ' '+,' '9U'78\'10& ' ' *

%E1')+66 '+,' 1 ' / 0' ,+*6 .' %& ' 7 * ' ; ;'!?;' = . *' *'. , - ' ' & '+ * ('+,' & '&+*, ' <<+ .' +' & * *,' / ' = 7 .' / ' & ' -'+,' & '1 ' ' & '* ,< - 7', * ' . , - 4U' %& '0* ' ? ** .' +' & ' 7 * ') < ' +' +*. *' & ' , +*, 6 '?&+' *'+ * (.'+'F * *' <+ ' & ' . *'?&+' *' . , - ' ' & '+ * -('+,' & *'&+*, ' ' & '* ,< - 7'.& *

%E1')+66 '+,' 1 ' '+ ' 3* ' ? ** .' +' 6 ' ; ;'!?;'K >' 2,? .'0 * '* - 7 *'+,' & ' << ' .' .' G ,' +'.* ?' + '+, '%2' '<* - <'7<+ ' & ')+ - +*'+,' & ' & * '+,'C - *. ',,+*' < ' 6 ' +' & '1 * ' +,' *, 5'+*' & ' +*. *' +,' & ' + 6 '+,' &* ', 7 '<+ .' * 0' ,+*' & ' ,' +,' & ')+6< '+,' G '6 ' <<+ .' +' / ' ' 3 * + ' . *' & ')+66 .' ' & ') , '+,' ' + *'7<+ ' ') * , - '<*+. - .'? . *' & ' & .'+,' & '6 , *' 6 , *'+*' & '. < '> * 0' & ' .' 6/ *' $+,' 6 '+' / '6 , -* .' .'?& -&' +?6 ' ' +' / ' +? .' ' & ',*,' .'+,' & '< '+,' & ' .')+6<

(=# =@ ?!
K; # ?=' ?!
;#BC;'
88 ;

%E1)+66 + ,1 & 7 0) . / ,+* & 6 ;
* & * * 6 , * 9 * (,+* + +/ 0 & <*+- 6 + 6 . / & 1 +, & 6 &+, <* , . & & & 7 0 -(+? .0 . & & & . + * . & , . <*+- 6 + +* <* . ,+* C 0 : 6 . T * <<+ . & * & ,, . & & &)+ * 7 . , . <*+- 6 + . - ** . &) * , - + & *+, . & *,+* ' <* 7 & 6 +,& / , - . ' - * &)& *-& 7 -

& */ & * & . + &Q - 0 <* - < +* 6+ ,*+6 & < / - . & * / 0 ,+ - , +<*+7 . & 6 ,+? & *6 , / ,+* & *7 - +, & C 0 .1 . & & * - 7 +*. * . %& * ,+* E 6 / << - 0 & * =+ ?+ . 3* ? ** . + & 3 * * - 7 * %+ .* ?<* - < 7<+ &) + - +* +, &) , G- , .)*+? * & +* & * , * %& & 7<+ 0& +, & 3 * 6 , * 6 , * +* & . < & * . - * + +, -&)+6< / 0 * , . . 6 , * . 6 0& .7 - +& 6 . & * G 7 +,, - * . + . * 6+ & < + & & ,- =+*. ?+ . +*. * + . 7 * + & 6 +* +, & +,, - * & & <<+ , / *6 . 6D + & (, & & C 0 .1 *7(6 + / * *. . , -& . 0 *+)+ 8 - * & . << - + / B : & -& / 0)+ , . * . / &)+66 +, & 1 %& ' + & */ 3* ? ** . + 6 2,? . +, J 0 + 3 * * - 7 *+, &) , . G- , %+ .* ?<* - < 7<+ &)+ - +* +,) , . G- , ? & & & * +, 1+, & * .) & +* 2*(,+* & * , 7 <+ . * 0 # + / < . + & < + * & =+*. * & 7 * ,+* -&)+6< +, & * 0 6 & * 6 & /) * , . / . - * + ,*+6 & * 6 , *+* & . < & &)+6H < 6 , * . + / D)? . & * < . + &)+6 6 .+ & & */ 3 7 +*. * .? ** . + & (< *+, & 0 S +, &) , +, * 0 +. 7 * + & < + * +* & +*. * <+ * - < %&* E .* & 6 (+* , * +-(? &<+?. * 6 -& . / -+ ,+*6

I 1 I %. << - + 0 7 . <* . + &)+6H 6 +, 1 > & 1 * +, 1 . +* & ? 0 %& ?& * & < + * ? * . + +, & > 0 * +, 1 0 +, * & ,+* + (0 & , . & 6 ? . ,<+, . +, / %E1)+66 + ,1 ' + 3* ? ** . + &)+6 : ** . + 6 , + * +, 6 & . * +, > *7 -(' +F * *7<+ & +, < * + <<+ . / . 6 ?&+ * . , - & + * -(+, & & * +, & 1 0& 0 &+*, . & , <<+ . / & - +, & 1 + / * . + +, & &8%

@# *=' ! ?;7
?!9 %B & ;8 ?#
$ = 8 # ;

%E1)+66 + ,1 ' + +*. & - 07 / & 6 0 , 6 : -& 6 , * & (*(+, + & = & , * +& +6 *7 6 ,) * * + * &+ * * 6 , * 9 * (' <* 7 0 & 6 +, . * / , - . ' - * 0 & * C *(7 - < +/ 9 6 + & < *+ +, & , * G 7 C *(<<+ (? 9 6 + +/ 07 & *+, & G =+*. . & < *+-& C *(

@# KK?>=# =A
#B =# =@ ?#
K; # ?=' ?!
?< = # ;
#?' D =# < #
#?' #B / #;?=

%E1)+66 + ,1 ' + 3* ? ** . + &)+6 : ** . + 6 , + * +, 6 & . * +, > *7 -(' +F * *7<+ & +, < * + <<+ . / . 6 ?&+ * . , - & + * -(+, & & * +, & 1 0& 0 &+*, . & , <<+ . / & - +, & 1 + / * . + +, & &8%

; !?; K >
#K #B 0?; '
e#; #B= ;('
BA < =#

I 1 I %' & << - + 0 7 . <* . + &)+6H 6 +, 1 / & =+*. * 7 * & ? 0 & ?& * & 1 +, & C * 0 . +6 / & * - .)+66 , + . . & %? ++ +, <* , ' . <<+ & . =+*. + /)+ + +, * 0 6 +, ,++ ?& -& +)+ , +, G E .* . 6 . 0 . =+*. . & 9 , * + * +,, - * * + (/ *. + & & <* G 06 - + * , & , * ? &+ = 7 6+ . &)+ . * 0 & . , - +, & , < - ?& * & + * , & . * 0 6 ,*+6 & / ,+* * * - / 0+ ,*+6 & 3 * 5 - 7 * & ? / - , + (< 6 6+ . +*

%E1)+66 +& 1 9k78 10& *

%E1)+66 +&1 /2*. .* F * +& . * + +,'+?& +* <<+ ./ /&6 (< * +,&< / -*6 3 0+?+. 7 * +& =+*.> *0 ,-+*< -(0&* 6 +,& +*. * .+/ 07 +& .=+*.07 0& * - <& *+

I1I%& <<-0+07 .<* .+)+6H 6 +,1 /* *-&/ . - +,*. - <& ? 0& ?& * < + * / 0+* ,)<6< +,,++ ?. *)- 6 .+,& 1 * +,*0)+ + . &&6 * * . ,+* 6 , * 0 , ?* <*+7 . * *6 .)+D+ &7 0 ,+* 6 *6 ?+ . *7 &8?&+ 50 6 / 6 * + --+ &< + * . * & 6 6 & *7 - / + * *. . %& *,+*& 6/)*7 0 & =+*. : + ./ < .+3* ?** . +& 0* +,' 6/ * + +. %7 * +&& ,, , +,+, 6 (?& * - 7 .,*+6 & 0S +,* 0 ,+* *6 0 +,& , - / 6 ? & * +,' 6/ * + . 7 * +& 07 * - <,+4 .*6 .+/E 6 +6 (6 , &-+6 0 ,+* .* , <<- / * :&-&/ 0)+ . * ./ & .)+66 +,1 &7 3* .. * *+, .'+&/ 37 2*. * . : ** .+ 0 * +, ' 6/ * + +. 7 * + < + * ,, , +,& , 6 (?& -& & * - 7 .,*+6 0S +,* 0 <+ & * - <. +/ 6 +6 (.*6 , * -+6 0,+* , +, < / -

%E1)+66 +&1)+ . * 0 * ? * +)+66, + * 6 ./ +*&% & - 2, 1 -+ - 6 0 ,,* .& & , 8 + * - & 7 <<+ .<2 7 +,, , 7 & .* &&+*, +, * .+ +, 7 * & * +,& C 0.+6 .+, - * .+ .6 . ,, - /)+66, + * +,6, 1-0& */ 37 <+? * .? ** .+)+668, + * +,& << ,+* & 7 * * / +*&% +/)+66, + * ,+* & .7 +,&+*,*?8 6 <+? * 3* .)+66, + * +, 6 ,+* 6 (0 .7 ,, - .2*. * *<* , +/ <* .

%E1)+66 +,1 37 +*. * .? %* .+ +& =+*.> *0 +* -&< * + & & & <<2 +- * .6<* + < * + +,: 6 Y . 6)+ - +*+,&) , ? & * +,* * L)+66 07 , *. * 2*. * &6 .+ + 6 (*-&,+* &) , /++(+,& .& * ?& * 7 * 6 - / & . .+ . 7 * & 6 + : 6 5+.0 * <* ,)+D - +,,+* 6+* * .)+ - 0+,) , ? & .& *

%E1)+66 +,2*. .5 F * 6 2 ? .0 * * - 7 * + ?<* - < 7<+ & < * - *)+D - $ +* +,&) , .G-, ? & & * +,= *-(5 H ,* ? * .' 6/ * + ,+* < 6 6 (0 + +& =+*.> *0 +* / +*. * +,,+ 6 E &,, , . <+ .,+ * & 0 * 0 6+ / 0 6+ < +,& 7)+6< +,& 50 6 6 , * .-+ ,+*6 + & 2*. * +,1

%E1)+66 +,1 .+ & */ 5 F * Q 2*. ; ;!?; *; ; =A D = 8 # #?#B 0?; ;A = & 1 * +,** & * / 3+7 * + * .(< * +,&) +,* 0 + .7 * + & =+*.> *0 +* & 2*. * %&* E &.,,+ * > .D * ,+* , +,& 50 6 .< -+, (6/ * +,> .D * ?& -&/ -+, 1 & ? <<+ .+ +* - 7 + +, & 0S * * .?& .& & & + * - 7 . .7<+ + * - <+, .=-,,.> *0 +* < * + + / +*. * ./ & 6 +* - 7 & 6

25'151' D G * - +,, ? ** .07 / ; ;!?; ; 9)+66 ,+* <* - < + / .* ? / * - 7 * / # +* . Q- * * -+*. ./ %& , * * /++(. - +/ ? ,+* ,, -

I1I%% & <<-+37 .<* .+ & @# =! ? ?! K# = & E ; =)+66 +,1 /) < 1.? *.> *.+ 0 * 6 *+,'' & 3 +*0 +, ?& * + 1.? *.> *.+ 0 * 6 *+,'' & 7 0 .+6 6 -+,*+6 -+ .+ ' H (*(J* -+ .+?* * <* / 8 = * * - 7 .+ ,+<+, .+ + = * +> D)& % * /+ & & *? <*+. - .+ .+ ,, E & < .)+6< * * +* ? / +< .+ .6<* + .+ * * < - + I -&+ '*+6 * / * ?& */ & 6 /) < - +* ?* * *+,+ ' (*(+H < + *_ +D .)+6< 6 / ¢ / * * .+ & 6 / -+66 .+ & - * .+ - , +. +,+ < . + * .?& & .0+ .)+6< * 6 &+6 .< - + / * : & -&/ 0)+ . * ./ & .)+66 +,1 %& 3* . * *+, E 7 2*. .+ .& */ 2*. I -+ '*+6 * +/ / * .+ < + *) < > *. D & * - 7 , - * & + & < .)+6<

%E1)+66 +,1 E 7 0) D ./ ,+* 6 3 +*0 > *- 6 , * +*. 0 + ,+* + +/ 0 <*+- 6 + 6 .+ / 1 +,* & +, <* , .& & 7 0 -(+? .0 .+ & & .+ * .+ .<*+- 6 + +*< * .+,+* C 0 : D 6 .T * * <<+ .+ & * %& ,1 .+ & & &)+ * 7 .+ ,.<*+- 6 + .9 - ** .+) * , - + *+, .+ *,+* ' <* 7 & 6 +, / , - .' . * (*(7 -- (=# =@ ?! K; # ?=?!) ?;A ' ;L @8 > < = # ;' # ?; =A#?C#"

%E1)+66 +,1 E 7 0)+ . * .+ < + ; ;!?; 8 ; =A 37 +* 6 / =+*.> .& 7 '+ 37 +*. * .+ B?; ?#? 1# H ? ** .+ &)+66, + * +,6 * & * +, #B B>; ?! * 0 .+) -(6 +* . 7 * + +* .=+*.- 6,

@ ' I' 3 ' ' I' ' J' K' L;MN' : 4" $

> & 7 ' +*' '& 0' & '+*. *' & ; &* '&+*, ',+*' & ' %*++< ' . ' + ' +,' & ' . ' & * '7<+ ' & '* - <',+*' & *' G+ * + '

g

%E 1')+66 ' .8+ < .' +' ' '- + -(' +' 6+**+?

< .' <+ ' .' & '&'- * , ' & 6' & ' ,' & ' & '& *' , *' +,, *' '7 + - '+*' 8 * ' +' &'< + *' & ', '/ ' < 6 & .',+*' &' 6'? &' '*0+ *' .' E 7' 2*. .' .' & */' 2*. ' &' & * +*' ' ?&+, '/+ . ' & , '< * + ' 7' & ' & '& * , *' -+66 ' '7 + - '+*' 8 * ' <+ ' & ' < + *' +' - *' & 6' .' +'<* ' & 6' & ' & '6 ' / ' / ' --+*. 0' +'= ?

%E 1' 7 ,&' ' '+,' ' @'78@1 0& ' ' *

; ;'!?;'#B ' < ;@B '?!' ?< '!?;@ ' #?' ;A>8

%E 1')+66 ' +,' & ' 1 ' '+' 5 -+66 .'# +')+ ' > ,+G*' >* 0 . *' 3^0 * ' +' +*. *' ,+ *')+6< '+,' & ' 5 0 6 '? . *' & ')+66 .' +,' & ' =+*.' > *0 ' +')+6< '+,' & '* 0 6 '? . *' & ')+66 .'+,' & '1 * '+,' 3 - 6 '+*'+ 'E .* &' .'%? '. -& .' 6 '+,' & ' 5 0 6 ' .' +')6 < '+,' & ' 5 0 6 '? . *' & ')+66 .'+,' & ' =+*.' > * ' +' 6 *-&' +' = *0 ' .',*+6' & -' +*',*+6' 9 *(<' +' 0+ ' +7 *' +'% */ ' .' ,' .' / ' +' <* , ' /+ ' ,+*' & *' %* ,<+* ' .' & *' +' +/ ' -&' +*. * ' ' & ' ,& '* - 7',*+6' & ' 2,, - *' +' / ' ' / ')+9+ D' > ,+ *' ?&+' ' +'- 5',+*' -&' 6 / * '+,' & '1 * ' +,' *0 ' 5 0 6 '? . *' & ')+66 .' +,' & ' = *.' +,' -& /* -(' = 7 ')+D+ ' & *+,' ' & ' ,& ' (', ' ,+*' & ' , , -

%E 1')+66 '+,' & '1 ' '+' & */' 07 '+*. *' Q' ? * ' 2*. *',+*' * .' +' & '(< *'+,' & ' *6 ' .' 66 + ' ' ' +' ; = ' . 7 *' <+ '* - <' -&' F ' +,' <+?. *' .' / ' ')+D+ '> ,+ *' & D' & (', ' +' +*. *' +' / '07 ' +' & ' ,+ *')+6< '+,' & ' =+*.' > *0 ' 5 0 6 '?&+' * ' +' 6 *-&' +' *0 ' & *

; ;'!?;'K > #?'#B '0 ; ' ?!') ; =# ' ' A < =#

%E 1')+66 '+,' 1 ' '+' 3* ' ? ** .' +' 6 ' 2,? .' 5 - 7 *' 3 * D' +,' & ' << ' .' .' G- , ' +' .* ?' '<* - <'7<+ ' & ')/D - +*' +,' & ' & * '+,'9 7 * ' I 6 ' .' ** ' ,,+*' < 6 ' +,' % * ' , 7 ' <+ .' * 0' +' & '= *.' +,' 3* '+*'& '+*. *',+*' & ' ,'+,' -&)+6< '+,' . '* 0 6 ' +' / ' 7 .'/ '& 6'7<+ ' '. . * ' ' + ',*+6' & ' 6 , *' 6 , *' +*' & ' . < ' +,' & ' -+ < ' 6 , *' +,' & ')+6< ' +'& ' +? .' ' &'< '+,' & ')+6H < ',*+6' & '. +,' & '6 , *

%E 1' = *' . *?* ' ? ' . * - .' +' *' ' - ') 6<' / D' +,' -& /* -(

95

%E 1')+66 '+,'1 ' E 7 0' 5 -+66 . ' +')+D+ D' > ,+ *' +' +*. *' +6 ')+6< '+,' & ' . 0' ,,+*- 0' +' 6 *-&' +' % */ '? . *' & ')+66 .'+,' -&' '+,, - *' '& ' & D' <<+ ' & '2*. ' + ' +' D+?' -&' ' 6 / *' +,' & ' 1 * '+,' *0 D' 5 0 6 '? . *' + *')+66 .' F'&', ' * F * ' +' 8+ '? &' & ' ,,+*- ' .' +' 6 *-&' +' -&'< - ' .'+/ ' -&'+*. * ' ' & ' & D' 07 ' & ' .' ' - - '& ' & ' * F * ' & ' , , - '+,' & '?&+D' 5 0 6 '+*' 6+,'< * # & *+,' + ' * ' +' (' <+ ' + ' & ')+66 .'+,' & 6' .' & ' + & *' ,,+*- ' ,+* .' .' & * ' +' (' .7 - '+,' & ' .' +,, - *' .' & ')+66 ' .+ ' (? ' &+* S' .'96 ' <+? *' + ' ,' + ' , .'- ,' +' - ' +0 & *' D' & ' , - / ' 6 ' ' & '-+ '+,' & ' & * '+,' *0 ' .'% */ ' .' +' (<' & 6' ' *6 ',+*' . , - '+,' & ')+ * ' .'? &' & 6' +' < *, ?' (D' .'. , < ' '< * + '?&+' & D' << *' '+<<+, + ' +' & '3+7 * 6 ' .' & ' .', - / ' 6 # .' + & *' ,,+*- ' ,+* .' * ' & */ ' 2*. * .' +' +/ ' -&' +*. * ' ' & ' & '* - 7',*+6' + '%& ' / '? ** .' .' ' 6 '+,' & ')+66 '+,'1 ' ' 0 , .' +' + '/ A+ *' ,, - + ',* .' .', *7 ' -' & *' 52 1

%E 1')+66 '+,' & '1 ' '+' & */' 07 '+*. *' .' ? * ' ; ;'!?;' * .' +' & '(< *'+,' & ' *6 ' .' 66 + ' ' 3 0+?' + : ' +' . 7 *' <+ '* - <' -&' F '+,' *6 ' .' 66 ' + ' ')+D+ '> ,+ *' & ' & (', ' +' +*. *' +' / '07 ' ? ' +' & ' +')+6< '+*'. -& .'< * '+,' & '1 * '+,' 3 ' - * '5 0 6 ' .' +' & ' +')+6< '+,' & '=+*.' > ' * '5 0 6 '?&+' * ' +' 6 *-&' +' *0 ' & *

%E 1')+66 '+,' 1 ' 2*. ' .'5 F * ' 6 ' 2*. *',+*< ' 2,? . .' * - 7 *' 3 * D' +' .* ?' <* - < ' + ' +& ')+-&* ' ,+*- k6 *- ' % -(6 '+,' & ' G- , '+,' & '? * ' & * ' ,,+*' < 6 +' @ ' & ')+66 . 0' 2,, - * ' +,' & ' +')+6< '+,' & '1 * '+,' 3 - * ' 5 0 6 ' .' & ' +')+6< '+,' & '=+*.' > * '5 0 6 '?&+' * ' +' 6 *-&' +' & ' & * ' +,' *0 D' +,' +' %&+ .'<+ .' -+ ' +' / '. 7 . .' F D',+*' 6 ' - '+,' & ' . ')+6< (0' * - < ',+6' & ')+6H 6 . 0' +,, - * ' +' &+ .8)+6<' & * ,+*' ' & '< '+,' & ' . ')+6< ' ' ;

(')+66 '+,'1 ' E 7 0' 2*. * .' '. -& .'< * ' : ** .'? +,' & ',++' 5 0 6 '? . *' & ')+66 .'+,' & '1 * '+, 3 - * ' & '=+*.' > ,* ' .' & '=+*.' > *,, ' +' 6 *-&' +' *0 ' &8** ',+*' . , - '+,' & ')+ '+,' *0 'Q

H A' [B '!?;@ + *0

%730+-' 31-0 - . %33 3"' 8#1' +"87-' " . . %6,%"72+' 6"+' 31-' 8+#1' "6 7Q-+2+0 275' "7-' "6 31-+' 78 . /-+' 3"' :+"Q05-' 6"+' 275' "+5-+' 31-' +27, :"+3%7# "6 31-' ,2%5,' 6""3 " . :27%-,' 6+" . '31-' . "63 4"7Q-7%-73 :"+3,' "7 31-' ,"831',05-' "6 31-' %Q2+' "6 !05-' %73"' 31-' ,2%5,' 1$+-,' "6 +#0!-' 275 2+/23' 275 %6' 7--568!K 3"' :+-6,' /"23,' "+' "31-+' 6%33 Q-6,-!!,' 6"+' 3123 -66-43' 275 31-0 5%6:-76-' 9%31' 1%,' 233-75274-' %7 31-' " . . %33--' 58+-%7# ,841' 30 . -' 2,' . 20 /-' 7-4-6,2+' 6"+' 1%,' :833%7# 31-' :+- . %66 3"' -6%-4385!' -^-483%"7-

' " . . %33--' "6 ,323-,' +52%7-' 31-' 1%++-66%,' 275' 31-%+' 5-:83-,' 3"' 5%,:2341' ,841' :8/!%43 "+5-+,' "+' !-33-+,' 2,' ,12!!' /-' 5%+-43 3"' 31- .' /-' 31-' "!%4%3"+' 6+" . ' 30 . -' 3"' 30 . -' 2,' 31-0 !12!!' /-' 2769-2+2/!-' 275 -4!2%+-' 3123 31-' 412+#-,' 3"' /-' 5-/8+6-5 /-' 31- .' %7 . 2S-%7# "6 31-' ,2%5 5%6:2341-,' ,12!!' /-' 2!!"9-5' 3"' 31- .' 23 6%33%7# "6 31-%+' +-^%Q-']8-,' %7 31-' ^41-]0-2+!0

' " . . %33--' "6 ,323-,' /-%7# %76"+ . -5' 3123 31-+' %,' 2 P4"76%5-+2/!-']8273%3%-' "6 . -2!!' /-!"7#%7# 3"' 31-' %,4"873 "6 875%-' %7 2 4-!!2+' 7-2+' 1S+-6 /+2-' -^:"6-5' 3"' ,2!-' 31-$' %Q-' 92++275' 3"' +41%/2!5 8%+-' 20 %-' "6 -%31' 3"' 3+0 91-+' 3123 . -2 ' %,' 275' 3"' ,-48+-' 31-' ,2 . -' Q73%!' 68+5-+' "+5-+' /-'#%Q-7 31-+27-73 275' 3"' 2++-%63 31-' :+04-' "6 270 "6 3123 . -2 ' 3123 %,' ,"!5

' " . . %33--' "6 ,323-,' "-' 1-%+/0 %Q-' "+5-+' 275 P92+ .5 3"' 2 . -,' 692!5 -4-2Q-+' -7-+2!% "6 31-' -6,' 275 -^-06-' 3"' 5+29' :+-4-:3,' "7 31-' "!!-43"+,' "6 27+%4S 275 --/!-,' ,10+-,' 3"' :20 31+-33%-' 60Q-' : 875 3-+!%7# 6"+' -241' " . :27%-' "6 31-' "+5 7#8,'+-#%- . -73 3"' /-' 2!!"9-5' %7 31-%+' :20 6+" . '31-' +-^%Q-' 50-3,' "6 31-%+' . 863-6 8:"7 :+"5843%- . -"6 2 -+3%6%423-' "6 31-%+' /-%7# . 863-+-5

' 31-' 8::!%423%"7-' #%Q-7 %7 275 :+-,-73-5 3"' 31-' " . @ ' . %33--' b%6 ,323-,' /0 31-' :2+"41%7-+,' "6 2 . "75 1-9%7# 3123 91-+2,' 31-' ,2%5 " . . %33--' 12Q-' . "!' $763!0 5-:+0Q-5 & "17 " . -+Q2%!' 6+" . '31-' -^-+5%6-' "6 31-' . %7%!!+%-' 9%31%7 31-' 2%5:2+"41' %3% +-6:-43 "6 1%2 4"73-. :3 3"' 31-' " . . %33--' 31-%+' 4" . . 275,' %7 7"3+-25%7# 31-' :+ 4!23723%"7-5%6"@H7-%7# 31-' 2831"+%3%-' "6 -' !23-' %7# 2 . -2275' %2'+-#82+5' "6 1%,' +-686-%7# 3"' :+20 6"+' 31-%+' 2$-,3%-,' %7# H% %2 . ' D 8--7 2+0 91"' 12Q-' /-%7 31-' #!"+%"8,' 6763+8 . -73,' :6 31-%+' 5-!0Q-+%-' 6+" . ' :": -+%-' 275 2+/%382%0 :"9-+' 275 ,--%7# 31-' 18+410%,' ,82 Q2427 275 3123 31-' :-3 ' 3%"7-+,' . 20 /-' "/7"^%"8,' 3"' . 270 3- . :323%"7-,' %6 31-0 ,1"8!5 /-' 5-63%383-' "6 -+ . "7-' 9%31%7 31-' :2+"41' 3%73%!' 27-' "31-+' . %7%63-+' /-' :+-,-73-5 275 763%383-' 244"+5%7# 3"' 29 ' 275 3123 31-' -3%3%"7-+,' 2+' :%"63 5-60+-"8,' 3"' 12Q-' 31-' 024 27]%-' %7 31%,' %7W 3-+Q2!-' ,8::!%-5 /0',841' . %7%!!-+,' 2,' 9%!' #%Q-' "58-' "/-5%-74-' 3"' 2831"+%3%-' 75 1-+-6"+' 18 . /!%-' 8::!%423-%7# 3"' 31-' -66-43 263-+ . -73%"7-5 2,' 31-' ,2%5 8::!%423%"7-' /-2+,' H1%41' /-%7# +-25 275 "7,%5-+-5 /-' 31"' ,2%5 " . . %33--' :6 ,323-' 31-0 2Q-' "!!-+23-' D -+ . %33-5 275 1-%+/0 " -+23-,' 275 -+ . %33-,' ,841' . %7%63-+,' 2,' 12 ' /-' . :!"0-5 /0 31-' :-3%3%"7-+,' 6+" . ' 30 . -' 3"' 30 . -' 3"' :+-241' 275 -^-+41-' 31-' . %7%63+%-' 9%31%7 31-' ,2%5 :2+"41' S%+S 873%$!'31-' 244274%-' /-' ,8::!%-5 31-' :-3%3%"7-+,' 2!!920-,' % . :!"0%7# ,841' . %7%63-+,' 3123 63%2 ' /-12Q-' 31- . 6-!Q-,' !"02!!%-' 275 :+20 6"+' %7#' H% %2 . ' 275 8--7 2+0 2,' %,' 2::"073-5 /0 31-' :+"4!2 . 23%"7-' "6 31-' ,323-,'275 31-' ,2%5 " . . %33--' "6 ,323-,' 1-%+/0 -4!2%+-,' 3123 3%%-' ,2 . -' ,12!!' /-& /83 :+-$85%4-' "6 31-' 23+"7-,' +%#13 2,' 244"+5,

Z " . . %33--' "6 31-' ,323-,' "-' 1-%+/0 %Q-' "+5-+' 275 -^-06-' 3"' 5+29' :+-4-:3,' "7 31-' "!!-43"+,' "6 27+%4S 275 --/!-,' ,10+-,' 3"' :20 31+-33%-' 60Q-' : 875 3-+!%7# 6"+' -241' " . :27%-' "6 31-' "+5 7#8,'+-#%- . -73 3"' /-' 2!!"9-5' %7 31-%+' :20 6+" . '31-' +-^%Q-' 50-3,' "6 31-%+' . 863-6 8:"7 :+"5843%- . -"6 2 -+3%6%423-' "6 31-%+' /-%7# . 863-+-5

' 31-' 8::!%423%"7-' #%Q-7 %7 275 :+-,-73-5 3"' 31-' " . @ ' . %33--' b%6 ,323-,' /0 31-' :2+"41%7-+,' "6 2 . "75 1-9%7# 3123 91-+2,' 31-' ,2%5 " . . %33--' 12Q-' . "!' $763!0 5-:+0Q-5 & "17 " . -+Q2%!' 6+" . '31-' -^-+5%6-' "6 31-' . %7%!!+%-' 9%31%7 31-' 2%5:2+"41' %3% +-6:-43 "6 1%2 4"73-. :3 3"' 31-' " . . %33--' 31-%+' 4" . . 275,' %7 7"3+-25%7# 31-' :+ 4!23723%"7-5%6"@H7-%7# 31-' 2831"+%3%-' "6 -' !23-' %7# 2 . -2275' %2'+-#82+5' "6 1%,' +-686-%7# 3"' :+20 6"+' 31-%+' 2$-,3%-,' %7# H% %2 . ' D 8--7 2+0 91"' 12Q-' /-%7 31-' #!"+%"8,' 6763+8 . -73,' :6 31-%+' 5-!0Q-+%-' 6+" . ' :": -+%-' 275 2+/%382%0 :"9-+' 275 ,--%7# 31-' 18+410%,' ,82 Q2427 275 3123 31-' :-3 ' 3%"7-+,' . 20 /-' "/7"^%"8,' 3"' . 270 3- . :323%"7-,' %6 31-0 ,1"8!5 /-' 5-63%383-' "6 -+ . "7-' 9%31%7 31-' :2+"41' 3%73%!' 27-' "31-+' . %7%63-+' /-' :+-,-73-5 275 763%383-' 244"+5%7# 3"' 29 ' 275 3123 31-' -3%3%"7-+,' 2+' :%"63 5-60+-"8,' 3"' 12Q-' 31-' 024 27]%-' %7 31%,' %7W 3-+Q2!-' ,8::!%-5 /0',841' . %7%!!-+,' 2,' 9%!' #%Q-' "58-' "/-5%-74-' 3"' 2831"+%3%-' 75 1-+-6"+' 18 . /!%-' 8::!%423-%7# 3"' 31-' -66-43 263-+ . -73%"7-5 2,' 31-' ,2%5 8::!%423%"7-' /-2+,' H1%41' /-%7# +-25 275 "7,%5-+-5 /-' 31"' ,2%5 " . . %33--' :6 ,323-' 31-0 2Q-' "!!-+23-' D -+ . %33-5 275 1-%+/0 " -+23-,' 275 -+ . %33-,' ,841' . %7%63-+,' 2,' 12 ' /-' . :!"0-5 /0 31-' :-3%3%"7-+,' 6+" . ' 30 . -' 3"' 30 . -' 3"' :+-241' 275 -^-+41-' 31-' . %7%63+%-' 9%31%7 31-' ,2%5 :2+"41' S%+S 873%$!'31-' 244274%-' /-' ,8::!%-5 31-' :-3%3%"7-+,' 2!!920-,' % . :!"0%7# ,841' . %7%63-+,' 3123 63%2 ' /-12Q-' 31- . 6-!Q-,' !"02!!%-' 275 :+20 6"+' %7#' H% %2 . ' 275 8--7 2+0 2,' %,' 2::"073-5 /0 31-' :+"4!2 . 23%"7-' "6 31-' ,323-,'275 31-' ,2%5 " . . %33--' "6 ,323-,' 1-%+/0 -4!2%+-,' 3123 3%%-' ,2 . -' ,12!!' /-& /83 :+-$85%4-' "6 31-' 23+"7-,' +%#13 2,' 244"+5,

' . %6,%Q-' -33-+' 975-+9+03-7 %,' 5%+-43 3"' 2:327-' @ 2&@ . %3"87-' f

' B

' "6 31-' ,-4"75 %7,3273 6+" . ' +--74263!-' 5%+-43-5 3"' 1%,' +24-' 31-' 8S-' "6 2 . %3" 7-' /-%7# 4" . . 87%423-' 3"' 8 ' 275 3123 6+" . '31-74-' 0"8 92,' /"875 3"92+5,' 31-' /20 "6 8/!%7-' 3 %_' 31"8#13 6%33 3123 0"8 ,2%!-' +231-+' 3"' 31-' "263 "6 31-' 6!-' "6 8!-' 275 31-' /24S-' "6 %730+-' 275 31-+-' 5-,3+"0 ,841' "6 31-' -+!%7-,' "+' /"23,&91%41' . 20 1:' 86-68 ' 3"' 63-' -7-. %-' 2,' 0"8 427 ' 3"' 91%41' :!24-' 0"8 2+-' 4" . . 275-5 68+319%31' 3"' +-:2%+,' 275 ,"-' . 841' 31-' . "+-' -4286-' 9-' 12Q-' 27-' 244"% . 3 6+" . ' %730+-' 3123 31-+-' %,@," . -' "6 31-' 5"72!5,' 275 "31-+,' 4" . -' "Q-+' 31-+' 275 ," . -' . "+-' 3"' 4" . -' 6+" . ' 73+% . ' 275 -!-73+0 %7 +-!275 3"' 3%23 :!24-,"-' 0"8 9"3$!5 7"3 7-#!-43 3"' ,2%!-' 31%31-+' 23 !-263 9%31"7-' "6 0"8+' 1%::-,' 275 4+8%6-' /-39%^3 8!-' 275 !-72%+ . -' 275 ,-75 2 6+-]8-73 244"873 "6 0"8+' 5%!%#-74-' -%31-+' 6+" . '31-' "263 "6 2!!"920 "+' 06+" . ' %730+-' 275 5"-' 0"7 "+5-+' 31-' 7-^3 2#%,3+23,' "6 8+#1,' ! ' 1-+-3"+,' 3"' ,-75 -^:+-6,-,' 9%31' 31-6-' 244"873,' 3"' 31-' " . . %33--' 91%41' %7 31-%+' 72 . -' %,' ,%#7%6%-5 3"' 0"8' /0

"8+' 266-43%"723 6+-%75
%4 ,8 38+' @

' " . . %33--' "6 31-' ,323-,' 2Q-%7#' 2!!-5 /-6"+' 31- .' !-^275-+' +-!275 . %7%63-+' "6 "6,"920 275 12Q-%7# +-4-2Q-5 623%,6243%"7-' 6+" . ' 1% . ' 3123 1-' 125 7"3 ,-%7 31-' :+"4!2W . 23%"7-' -7833-5 /031-' ,323-,@7"+' S7"9-7 31-' 7238+-' "6 %3 3%!!' 1-' 42 . -' 3"' 5%7/8+#1' 275 31-7 8:"7 4"7,%5-+23%"7-' 31-+"6 1-' 92,' ,23%,6%-5 27-73 1%,' 4+"8:!-,' 275 3123 1-' 9%!' +-25 31-' :+"4!2 . 23%"7-' "7 2//231' 520 7-^3 275 9%!' :+20 6"+' %7#

%73-75%7# 3‴ #"-‚ 6"+‘ +-!275 275 9-+‚ -‚73 8:‘ 3‴ 31-‘ ‚2%5‚
2#%63+23‚ 3‴ /-‚ 4"‚ . .%33-5 3‴ :+%"7-‚ 91-+%7 31-0 12Q‘ !0-7
2‘!31%‚30 . -‘8:"7 31-‘ 2#%63+23‚-^:-76 ‘ 75%7+-!$:-43 7"31%7#
12‚ /--7 :+"Q-7 2#2%763 31-.‘ 275 3123 31-0 2+-‘ 2 /8+5%7#3‴
31-‘ :!24-‘ /-605-‚ 3123 31-0 4277"3 7"9‘#"-‘3‴ +-!275 31"8#1‘
31-0 9-+-‘23 !%/-+3%-‘ /0‘+-2‚"7-‘"631-‘ ./2+#"3123%‚!2%5 8:"7
2‘!Q-6‚-!i‚"7 31-‘4"263 75 1-+-6"+ 18 . /!-‘ +2Q-%7# 3123
31-‘‚2%5 ". .%33-‘ 9"8!5 +273 92++275 3‴ -‘3 31-‘ 6"+‚2%5
:-+‚"-7-‘‚23 !%/-+3%-‘ "+Q69 20-‘‚3‴ 5%6:"6-‘ 8:"7 31-.‘2‚31-0
‚12‘!31%TS 6%33 ‚"‚2‚31-‘:-3%%"7-+‘‚.20‘/-‘+-%Q-5‘"6270 68+31-+‘
/8+5-7 A4"74-+7-%7# 31-.‘2‚31-‘‚2%5 6 8::!%423%"7-‘ /-2+‚
H !441‘ /-%7# +-25 275 4"76%5 +-5‘/-‘31-‘62%5 ". .%33-‘"6
‚323-‘‚31-0‘ "-‘ 1-%+/0‘ +52%7‘31-‘ :-3%%"7-+‘‚3‴-‘3 23
!%/-+3%-‘31-‘2/"Q-72 . -5‘38‴ :-+‘"7-‘‚275 5-!0Q-+‘31-.‘‚3‴ "17
412H}"6 +-7"4S 9%3T‘:"9-+‘3‴1%.‘%7-‘31-.‘275 . -^2 .%7-‘31-.‘275
. :!"0 31-.‘"+7"3 2‘‚1-‘31%7S‘‚6%33

; ‘;!?‘K >‘ S
" K ‘; = ‘39"
Y731-& 2‚ - g‘

H %!!%2 .‘275 8--7 2+0 2‚ %7# 275 8--7"6 4"3!275 1-0‘
5"-‘ "+52%7-‘1%.‘3‴ 4"73%7"9‘%7 31-‘ :-24-2/!-‘ -^-+4%6-‘"6 1%‘
. %7%!%+%-‘275 -7$"0 . -73 "6 1%‘ %+S 275 /-7-6%4-‘275 "+52%7-‘
31-‘ :2+"41%7-+‘‚275 %+‘ 1%++6 ‘3"‘ .2S-‘ .":-7
31-‘S%+S 5"'+‘‚3‴1%.‘‚275 .27!32%7-‘1%.‘%7 31-‘:"6‚-6‚%"7-‘31-+"6

H ‘31-‘/275"6 283%"7+%-‘#%Q-7%7‘/-‘1%.‘@

‘ 3 -7S 3‴ 2!‘ .-7 /-‘ 31%+‘ :+-‚-73 -33-+‘‚.‘ "/-+3 =‘?i@ =9‘
8+31!2775 %7 +Q%7-‘66"+2‚.841‘2‘‚31-‘ "..%33--"6 ‚323-‘‚ ?D ‘:#B9‘
2Q‘ ::"073-5 27-‘243 275 "..%"7-‘3‴/-‘ +273-5 3‴ 6Cc8&
. -‘3‴/-‘ 8+Q-0"+‘"6 31-‘:+-4%743 "6 31-‘4863"..-‘1"86-‘"6
+0%7-‘ 8:"7 .0 6%75%7# "6 283%"7-‘3‴ 31-‘-66-43 263-+.-723
1-+-6"+‘9%33 0-‘.-‘2‘‚:+%733 275 9%31‘.-‘ 8+#1‘ +"97-‘ "./W
.%6‚%"72+6"+‘31-‘ 8+#1‘"6 7Q-+2%+%-‘2‘ 283%"7-+‘ "Q-+3%-‘275
68!i5-/%3"+‘3‴/-‘/"875 275 "/i-%63 i0S-2‘9--‘/-‘31-‘3-77"+‘
1-+"6 %7S 275 "/i-%5#-‘8‘‚4"733%-‘275 -‘233%-"8+2%+-‘‚-^-+‘
275 ‚844-6‚"+‘‚9123‚". -Q-+‘3123 ‘31-‘‚2%5 "/-+3 8+31!275
61!2!+‘62%3168!i-‘ "-‘275 :-+6"+.-‘2!+275 9123‚"..-Q-+‘31%7#‘‚
:+"‘:-+‘275 %748 ./-73 6"+‘.-‘3‴5-‘2‘‚ 8+Q-0"+‘"6‘31-‘‚2%5
:+-4%743 "+‘6"+‘270 "31-+‘ 8+Q-0"+‘9%31%7‘31-‘ %7#5".-\F5"-‘
275 :-+6"+.-‘275 3123 1-‘61!2!+ :20‘3‴5-‘31-‘ "+5 1-628+-+‘"+
"+5‘"6 1-628+2+0‘3‴/-‘7".%723 /0‘1%‘ 2$-‚3%-‘"+‘3‴31-‘
-7-+2!+ -4-2Q-+‘;"+‘"31-+‘‚3‴/-‘%73+8‚3-5 /0‘31-.‘‚841‘
52.725#-‘2‘‚61!2!+12::-7 3‴/-‘‚8‚32%7-5 31+"9‘1%‘‚5-628!3
7S ‘31-‘‚2%5@"/-+3 8+31!275 %75‘‚275 "/i-%5#-‘‚.‘3‴
92++275 6+--‘+-i-%Q-‘275 ‚S2%31!-‘‚S--:‘.0 ‚2%5 283%"7-+‘
2/"Q-72 .-5 275 1%‘‚6"+‚2%5‘"6?!2!+4"263 ‚S2%31‘52.725#-‘%73-+-63
"+‘-^:-76‘‚31-0‘‚12!+‘270 920-‘‚12::-7 3‴ ‚8632%7-‘"+‘%748+‘
31+"9‘31-%+‘ 283%"7+%-‘2/"Q-.-73%"7-5 "7‚-73%7# 3‴ 31-‘
+-#%63+23%"7-‘1-%+"6 %7 31-‘/"".S‘‚"6 ^41-]6‘"+‘270 "31-+‘
85#-‘‚/"".S‘‚4"..:-3-73 9%31%7‘31%‘ %7#5".-‘3‴ 12Q-‘31-‘
‚3@-7!3‘"6 27-‘5-4+-%3"6 -%31-+‘"631-‘85#-‘‚31-+"6 73-+:"7-5
31-+3‴ 3123 -33-+‘‚"6 "+7-%7# "7 ‚-^‘ 520-‘‚275 73!%-+‚

4 -7T%-‘ i-+5"6 31-‘ -6‚%"7-‘%76-+%-+‘"6 31-‘/!275‘‚523-‘275
9%37-6 ‘72..-‘‚ %4‘‚8/‚4+%/%38+‘"17 "+-‘ 8#1‘ +"97-‘
9%37-‘‚"£ 24S-7T%-‘9%37-‘‚

; !0S-‘ ". .%‚%"7-‘ +273-5 3‴ "/-+3 8+31!275 3‴/-‘
8+Q-02+‘"631-6 8‚3"..-‘1"86-‘"6 +Q-%7#

H ‘31-‘/275"6 283"7+%-‘#%Q-7%7‘/-‘1%.‘@

‘ 3 -7S 3‴ 2!‘ .-7 /-‘ 31%+‘ :+-‚-73 -33-+‘‚.‘ "/-+3 =‘?i@ =9‘
8+31!275 %7 +Q%7-‘66"+2‚.841‘2‘‚31-‘ "..%33--"6 ‚323-‘‚ ?D ‘:#B9‘
2Q‘ ::"073-5 27-‘243 275 "..%"7-‘3‴/-‘ +273-5 3‴ 6Cc8&
. -‘3‴/-‘ 8+Q-0"+‘"6 31-‘:+-4%743 "6 31-‘4863"..-‘1"86-‘"6
+0%7-‘ 8:"7 .0 6%75%7# "6 283%"7-‘3‴ 31-‘-66-43 263-+.-723
1-+-6"+‘9%33 0-‘.-‘2‘‚:+%733 275 9%31‘.-‘ 8+#1‘ +"97-‘ "./W
.%6‚%"72+6"+‘31-‘ 8+#1‘"6 7Q-+2%+%-‘2‘ 283%"7-+‘ "Q-+3%-‘275
68!i5-/%3"+‘3‴/-‘/"875 275 "/i-%63 i0S-2‘9--‘/-‘31-‘3-77"+‘
1-+"6 %7S 275 "/i-%5#-‘8‘‚4"733%-‘275 -‘233%-"8+2%+-‘‚-^-+‘
275 ‚844-6‚"+‘‚9123‚". -Q-+‘3123 ‘31-‘‚2%5 "/-+3 8+31!275
61!2!+‘62%3168!i-‘ "-‘275 :-+6"+.-‘2!+275 9123‚"..-Q-+‘31%7#‘‚
:+"‘:-+‘275 %748 ./-73 6"+‘.-‘3‴5-‘2‘‚ 8+Q-0"+‘"6‘31-‘‚2%5
:+-4%743 "+‘6"+‘270 "31-+‘ 8+Q-0"+‘9%31%7‘31-‘ %7#5".-\F5"-‘
275 :-+6"+.-‘275 3123 1-‘61!2!+ :20‘3‴5-‘31-‘ "+5 1-628+-+‘"+
"+5‘"6 1-628+2+0‘3‴/-‘7".%723 /0‘1%‘ 2$-‚3%-‘"+‘3‴31-‘
-7-+2!+ -4-2Q-+‘;"+‘"31-+‘‚3‴/-‘%73+8‚3-5 /0‘31-.‘‚841‘
52.725#-‘2‘‚61!2!+12::-7 3‴/-‘‚8‚32%7-5 31+"9‘1%‘‚5-628!3
7S ‘31-‘‚2%5@"/-+3 8+31!275 %75‘‚275 "/i-%5#-‘‚.‘3‴
92++275 6+--‘+-i-%Q-‘275 ‚S2%31!-‘‚S--:‘.0 ‚2%5 283%"7-+‘
2/"Q-72 .-5 275 1%‘‚6"+‚2%5‘"6?!2!+4"263 ‚S2%31‘52.725#-‘%73-+-63
"+‘-^:-76‘‚31-0‘‚12!+‘270 920-‘‚12::-7 3‴ ‚8632%7-‘"+‘%748+‘
31+"9‘31-%+‘ 283%"7+%-‘2/"Q-.-73%"7-5 "7‚-73%7# 3‴ 31-‘
+-#%63+23%"7-‘1-%+"6 %7 31-‘/"".S‘‚"6 ^41-]6‘"+‘270 "31-+‘
85#-‘‚/"".S‘‚4"..:-3-73 9%31%7‘31%‘ %7#5".-‘3‴ 12Q-‘31-‘
‚3@-7!3‘"6 27-‘5-4+-%3"6 -%31-+‘"6 31-‘85#-‘‚31-+"6 73-+:"7-5
31-+3‴ 3123 -33-+‘‚"6 "+7-%7# "7 ‚-^‘ 520-‘‚275 73!%-+‚

S ‘ ‘ ‘ ‘ ‘ ‘ ‘ #

H %!!%2 .‘275 8--7 2+0 2‚ %7# 275 8--7"6 4"3!275 1-0‘
5"-‘ "+52%7-‘1%.‘3‴ 4"73%7"9‘%7 31-‘ :-24-2/!-‘ -^-+4%6-‘"6 1%‘
. %7%!%+%-‘275 -7$"0 . -73 "6 1%‘ %+S 275 /-7-6%4-‘275 "+52%7-‘
31-‘ :2+"41%7-+‘‚275 %+‘ 1%++6 ‘3"‘ .2S-‘ .":-7
31-‘S%+S 5"'+‘‚3‴1%.‘‚275 .27!32%7-‘1%.‘%7 31-‘:"6‚-6‚%"7-‘31-+"6

3‴7gN H g 3J
" << =A‘D
& # ; ?= ‘

H %!!%2 .‘ 2+D% . %7 275 23-+6"-7‘ 9-+‘‚-2T-5 23
7-9‘ "+3 !2‚#"9‘ /0‘ 31-‘‚8+Q-0"+‘ 2‚ /-%7# 2!!-25#-5
$%07-‘0-2+‚

7-4-6,2‡ . 2Ø / -‚ 5%+-43 1-%+8:"7 27S 6"‡ 3123 -66-43 "7,3%83-, 9%37-‚ 91-+"6 H --‚ 12Q-‚ 68/64+0Q-5 31%‡ :+-‚-73‚ V9+03-7 /-‚Ç 1" . 2‚ "/i-‚ 9+032‡ %7 5%7/8+#1F 9%31' "8‡ 1275‚ 3 5%7W /8+#1'31-‚ %#13 52Ø "6 Ø 'ć Q$Ć %#13%-‚707-‚0-2+‚ H%37-6iY "17 8%+-‚ :+"Q-63 "6 %+-‚ 27S "17 24S-77%-‚ i-+S "6 31-‚ -6‚%"7-‚ %76-+32‡ "6 31-‚ /i27S‚ 523-‚ 27S 9%37-‚ 72 . -‚' %‡ ‚8/‚4+%/%38‡ 8#1' +"97-‚ "17 "'+‡ 9%37-‚ "‡E 24W S-77%-‚9%37-‚

‚ "‚ . %33--‚ "6 ‚323-‚ 32S-%7# 3"‚ 31-%‡ "7‚%5-+23%"7-‚ 3123 31-‚ 9-63- . -‚ "2‚3 i0-‚ . "if -^:"6-5 3"‚ 27-‚ %7Q26%"7-‚ 6+"‚' +-i27S 31-Ø +5Ø%7-‚ 27S -]80+-‚ "17 4129'0"87#-+‚ "6 +-7"4S 3"‚ /-‚ +-25%-‚9%31'‚31-‚ "‚ . :27%-‚ 975-+‚ 1%‚ 4"‚ W . 27S 6"+‚ 5-6-74-‚"631-‚2%S "263 3"‚ :-+6-9 '6%#13'‚S%ii'‚5%‚%:23-‚ 27S 5%6:-+6-‚270' :-+‚"7-‚ 91"‚ 61212if 2::-2‡ %7 "‚:"6%3%"7-‚3"‚31-6 :+-6-73 "Q-+7 . -73' 27S %6' 7--5' /-‚'3"‚ 42if 27S S--‚'3"#%31-+‡ 2if 31-‚1-+-3"+‚ 27S 6-74%/i-‚ . -7 9%31%7 31-‚ 10+-‚ "6 -76+-9' 6"+‚ 1%‚ 26‚%3274-‚ 2‚ "63-7 27S 6"+‚ ‚841'307i-‚2‚1-‚i12if$85#-‚ 7-4]6‚2‡ -]80+-%7# 1-%+/Ø 31-‚ ‚2%S‚1-+%3"+‚ D 6-7-%/i-‚ . -7 3"‚ :+-6-73‚2‚31-Ø 612if / -‚276Q -+2/i-‚8:"7 31-%‡1%#1-if :-++%ii . --3 9%31'31-%‡ / -if 2+ . -‚ 27S "/-Ø1% .'%"‚ :+"6-483%"7-‚"631-63 92++27S 27S %7 72 . ‚"6 31-‚ "‚ . %33--‚ "6 ‚323-‚ %‚ 6%#7%i%-S 3"0"8' /0

"8‡ . "63 8 . /i-‚63+Q273
%‡ ‚8/38‡ £

H2+27S3"‚ ‚ "‚ . %33--‚ "6 31-‚ ‚323-‚ 2Q-%7# +-4-2Q-S 63%"+ . 23%"7-‚ "6 . "7-Ø 9 41' 31-Ø 12Q-‚ +-2637‚ 3"‚ /-i-%Q-‚/-i"7#-‚‚3"‚:-+@ ‚8,:-43 :-+‚"7‚ # $$ # #$# -7- . %-‚ 3"‚ 31-‚ %7#5"‚ . -‚ 31-Ø 5"-‚ 31-%+6"+-

1-%+/Ø %Q-‚"+5-‡ 27S :"9-‡ 3"‚ 31-‚ :+5 "6‚'31-%‡:+-6%5-73 3"6-48+-‚27S‚-2T-‚'841' "7-0-‚'27S 3"‚%‚8-‚"83 2if 7-4-6‚2‡ "+5-+‚3"‚ 3123 -66-43 3%if %3 2::-2‡ 3"‚ 91"‚' 31-‚ ‚2%S‚ . "7-0-2 5"-3I' /-i"7#-

‚ :+-4-:3 975-+9+03-7 92‚ 5629-7 8:"7 %‡ 23+%4S 8++20

‚ ‚12if :2Ø 3"‚ 8#1' +"97-‚ "787%‚%"72‡ 6"‡ 31-‚ /8+#1' "6 /; @ k#‡?'k >' 7Q-+2+%-‚ 66ØQ-‚:"875‚ 3-+i%7# . "7-Ø 6"+‚ 5-6+20-%7# 1%‚-^:-766% 6ØQ-‚:. 7 g %7 #"-%7# 3"‚ -76+-9'‚275 31-+-‚"+5-+%7# 5%-‚3+276: +3 "6 31-‚6-^6 "‚ . :27%-‚ 4"‚ . 275-5 3"‚ . 2+4I' 6+"‚' 31-74-‚ 873"‚ 31-‚ 10+-‚ ' "6 +#0if 66"‡ 91%4I' 31%‡' :+-6-73‚ 9%3I' 1%‚ +-4-:3 i12if /-‚ 0"8‡ 92++275 ‚ ‚ ‚ ‚ (' * (

%‡ ‚8/38‡ £

"‡ 23+%4S 8++2Ø -7-+2i% +-4-2Q-‡ "6 31-‚ 8‚3"‚ . -‚ 27S +"97-‚+-73‚

‚ "‚ . %33--‚ "6 ‚323-‚ 975-+‚3275%7# 3123 31-‚ %‚4"873 "6 875%-‚ 91"‚ 5-7874-5 68#3%Q-‚275 +-/-i‹'‚ 2438218%-‚%7 2+ . -‚ 2#2%763 31-‚:+-‚-73 "Q-+7 . -73 275 1-‚ . 2+41-5 %:‚27-‚1"63%i-‚ . 27-‡ %73"31]'7"+31- . -‚:2+3‚"6 31-‚ %7#5" . -‚%75-2Q"8+-%7# 3"4"7Q"423-‚ D'ł‚-58‡-‚"31-‡:-+‚"-‚5%‚266-43-5 3"31-‚ "Q-+7W . -73 3"4"‚ 9%31'1%‚3"31-‚5%38+/-274-‚"6 31-‚:8/i%43 :-24-‚ 1-+-6"+‚31-‚2%5 "‚ . %33--‚%7:8+6827‡-‚"631-‚3‚63 275 :"9-‡ #+273-5 3"5] .'‚/-‚31-‚ ‚323-‚"6 31-‚ %7#5" . -‚ +273 68if :"9-‡ 275 " . %‚6‚%"7-‚3"‚ 2Q%5‚ "6‚-‚"6 2i72#"97-‚3"‚4"7@ Q"423 275 42if 3"#%31-‡ 2if ‚66+-%75‚ 275&S%76%7-7 Q26‚-ii' 6"ii"9-+‚275 3-77273‚ 27S "31-‡ 6-74%/i-‚ . -7 975-‡1%‚4"‚ W . 275 "‡%6i8-74-‚ 2i6-9--if 9%31%7 /8+#1'‚2‚%7 i2759 2+3 9%31' 31-%‡ /-ii‚1"+63‚27S 2+.-‚ 27S 3"‚ 9%73"87-‚"6'87#-‡ "6‚ -+6‚%7#@ DŠ . : %6‚& &' . :27%-‚"‡ 2 -#%- . -73 9%31' :"9-‡ 3"‚ 72 . -‚ ‚%76-+%"8‡ "6%% -+‚ 27S #+27S " . %‚%"7-‚ 244"+5%7#i%-‚27S 31-+-9%3I' 3"87-‚27S 2 . -‚ i-%41' 38"‚"6 31-‚ 2:327-‚ %7 31-‚ "+5

5%%:23-‚27S 5%i:-+63 27Q 4"7Q"423%"7-‚"‡ /"5%-‚"6 . -7 #231-+-‚5 3"#%31-‡%7Ć"::"6%3%"7-‚3"‚31-‚:+-‚-73 "Q-+7 . -73' 27S 3"‚5%‚/27S 27S +-42if 31-‚'2%5‚:+-‚"7-‚'975-+‚1%‚4"‚W . 275 91-7-Q-‡1-‚612if $85#-‚7-4-6‚2‡ 27S 3"‚243 27S 5"-‚2if 31%7#‚+-]8%%3-‚27S \%748 . /-73 6"‡ 2 :-+‚"7-‚%7 ‚841' 2 3+863 2i63 9--if 6"‡ ‚8:+-6‚%7# 31%‚:+-6-73 4"‚ . "3%"7-‚2‚270 "31-‡ 5%38#/-274-‚91%41' . 20 1-%+26i-‡12::-7 3"‚ /-‚233- . :-5 2#Z%763 31-‚:+]637 "Q-+7 . -73 +-]8%-67# 1-%+/Ø 31-‚ ‚2%S‚ :-+‚"7-‚‚3"‚ #%Q-‚ 2iI@ 58-‚ /-5%-74-‚ 3"‚31-‚ ‚2%S 2Q%5 "6‚-‚"6 2i72#"97-‚ %7 :8+6827‡-‚ 6 31-‚ :+-.%% ‚ 2‚ 31-Ø i12if /-‚ 2769-2+2/i-‚ 7S 31-‚ "‚ . %33--‚ b "-‚ /-‚ Q-+38-‚"631%‚:+-6-73 "‚ . %‚%"7-‚#%Q-‚ 92++275 275 2831"+%T-‚31-‚‚2%S 2Q%5 "6‚-‚"6 2i72#"97-‚3"‚ ‚-2T-‚275‚-48+-‚2if 3+26-43%7#:+-%63‚275$-68%3-‚‚9 41‚i12if /-‚ 6"875 9%3 7 31-‚ 10+-‚ "6‚-‚275 3"‚ 5%31 :‚%63‚ 9%31%7 31-‚ -6-+Q-%7# 3"‚ -73i- . -7 31-%‡ 9-2+%7# ‚9"+5‚ 7S 2i6-‚31-Ø +-]80+-‚275 "+52%7-‚31-‚‚2%S 2Q%5 "6‚ 2i72#"97 3"‚ /6-+Q-‚275 :+"6-483-‚‚841'"+5-+‚275 5%+-4@ 3%"7-‚‚2‚1-‚6i%2if +-4-2Q-‚6+"‚'‚31-‚‚2%S "‚ . %33--‚"+‚6+"‚'‚31-‚ . --3%7# "6 31-‚ ‚323-‚6+"‚'‚30 . -‚"+6+"‚' 2$"+ -7-W +2i% 6 2Ø :+-‚-73 "Q-+7 . -73 275 1-‚ .2+41-5 %:‚27-‚1"63%i-‚ 27"+31' "6 4"3i275 91%41' %‚31-‚"7 1%-6-‚"6 31-‚ 66"+4-‚"6 31%‚ %7#5" . -‚"+ 27Ø "31-+‚8‚:-+%"+‚%6%4-+‚244"+5%7# 3"31-‚+8i-‚275 5%‚4%: 7-‚ 270' 9"31-+‚8‚:-+%"+‚%6%4-+‚244"+5%7# 3"31-‚+8i-‚275 5%‚4%: 7-‚ "6 92++‚ 75' "+52%7-‚31%‚' . 275-+‚%7 1%-6-‚"6 31-‚ 30 . -‚"+6+"‚' 2$"+ -7-W +2i% 6 2Ø :+-‚-73 "Q-+7 . -73 275 1-‚ .2+41-5 %:‚27-‚1"63%i-‚ 27"+31' "6 4"3i275 91%41' %‚31-‚"7 1%-6-‚"6 31-‚ 66"+4-‚"6 31%‚ %7#5" . -‚"+ 27Ø "31-+‚8‚:-+%"+‚%6%4-+‚244"+5%7# 3"31-‚+8i-‚275 5%‚4%: 7-‚ 270' 9"31-+‚8‚:-+%"+‚%6%4-+‚244"+5%7# 3"31-‚+8i-‚275 5%‚4%: 7-‚ "6 92++‚ 75' "+52%7-‚31%‚' . 275-+‚%7 1%-6-‚"6 31-‚ 30 . -‚"+6+"‚' 2$"+ -7-W +2i% 6 2Ø :+-‚-73 "Q-+7 . -73 275 1-‚ .2+41-5 %:‚27-‚1"63%i-‚ 27"+31' "6 4"3i275 91%41' %‚31-‚"7 1%-6-‚"6 31-‚ 66"+4-‚"6 31%‚ %7#5" . -‚"+ 27Ø "

!2730+-,' -#%- . -73 18 . /!%-' -:+-,-73%7# 3123 31-' :-3%3"7-+,' 263-+' 2' #+-23 5 !!' "6 3+"8/!-' 275 -^:-76 ' 1231 7"9' !-Q%-5' 275 4" . :!-23-5 31-%+' +-^%Q-' " . :27%-,' 275 2%@-' +-25%-' 3"' +275%Q"8 31-' ,2 . -' %6 2$"+' 873-%7 91"' %,' -7-+2!% . 8!!-+' . 233-+' 275 7"9' 744-6,2%@!%-' %7 31-' "873+%-' 2/"83 1%,' 412+#-' 9-+-' :+-6-73 75 ,--%7# %3 %,' Q-+0 /8+5-7," . -' 275 -^:-76%Q-' 3"' 31-' :-3%3"7-+,' 3"' S--:',"' . 270 . -7 8:"7 31-%+' 1275,' 75 1-+-6"+' 18 . /!%-' +2Q-%7# 3123 31-' ,2%5 " . .%33--' 9"8!5 #%Q-' "+5-+' 275 92+@ +275 3"' 31-' ,2%5 "!!"7-!' 2!6"8+' "+' 270 1-' 6!%2!' 2::"073 3"' +275%Q"8 31-' ,2%5,' " .:27%-,' 3123 31-0 . 20 % . . -5%23!%-' 31-+@ 263-+' -73-+' %73"' 1%,' 2$-33%-,' :20 2,' 31-' ,2%5 " . .%33--' 1231 5"7-' 6" . -+!0 %7 31-' !0S-' 42%4-,' H 1%41 8::!%423% . %-' /-%7# 23 !-731 +-25 1-2+5 275 4"76%5-+-5 /-' 31-' ,2%5 " . .%33--' "6 ,323-,' 31-0 12Q-' +-4" . .-75-5 275 1-%+/0 +-4" . .-75,' 3"' 31-' ,2%5 "!!"7-!' 2!6"8+' "+' 270 :-+,:7-' 1-' !12 ' 2::"073 3"@ . 833-+' 31-' 38"' " .:27%-,' 2/"Q-.-73%"7-5 275 3"' #+273 2' -+3%6%423-' 31-+"6 975-+' 1%,' 1275 3123 31]+' . 20 -73-+' %73"' 1%,' 2$-,3%-,' :20

; ,' #?' K9# # = ' ?C=A' #?' @8 ;< ' C L K @#' K ; ?=

' " . .%33--' "6 ,323-,' 5"-' #%Q-' 92++275 3"' 2:327-' "87# 91"' %,' % .:!"0-5 /0 "!!"7-!' 2!6"%8 3"' 4" . .275 31-' "+4-,' "+5-+-5 3"' /-' ,-73 3"' +#0!' 3"' 5%62+ .-' 270 :-+,"7-,' 91" .' 8:"7 %76"+ .23%"7-' 1-'612!' 12Q-' $863 #+"875 3"' ,86:-43 2,' 5%6@ 266-43-5 3"' 31-' "Q-+7 .-73 275 !0S-920-,' 3"' ,-48+-' 31-+' :-+W ,"7-,' Q73%!' 31-0 6%75 4283%"7-' 6"6 S--:%7# 31-' :-24-

(=# =@ '?!' X8 !!`; # K=' ?!' 79 8?F' *; = ' < = # ;' # * < ;" #B =!!

' " . .%33--' "6 31-' ,323-,' 12Q-%7# 42!!-5 /-6"+' 31- .' G !-^275-+' +Q%7-' .%7%63-+' 23 78-+S-%31%7# 6"+' 7"3"/-0%7# 31-' :+"4!2 .23%"7-' - .%33-5 /-' 31-' ,323-,' "6 31-' 31+-3-%731 "6 :+0!-' !263 75 1-' 12Q-%7# 24S7"9!-5#-5 3123 1-' 125 7"3 +-25 31-' ,2%5 :+"4!2 .23%"7-' 7"+' :+20-5 6"+' %7# H%!!%2 .' 275 8--7 2+0 2,' %,' 2::"073-5 31-+%7 31-0 66%75 3123 1-' 1-,' 4"73+2Q--7-5 31-' 62%5 :+"4!2 .23%"7-' 275 %748++-5 31-' 4-+3%6%423%"7-' 31-+"6275 31-+-W 6"+' 5-:+0Q-,' 1% .' "6 1%,' /-7-6%4-' 275 5-4!2%+-,' 1%,' S%+S' Q24273

; ,' !?;' g 8> ; CA' =>=' B?; ' ?C#?!' #B ' B>; ' ?!' (# ;8 =A' Q' J "< == =' #?' #B ' 0?; ' ?

' " . .%33--' "6 ,323-,' 4"7,%5-+%7# 3123 31-' 10+-,' "6 3%+-!%7# 275 !24S .27727 2+-' !02/!-' 3"' "83+-%S-' 707-' 1"+6-@ .-7 3"' 31-' :+-,-73 !-Q%-' /0 275 233"8+' 31-' 31+-33-%7 1"+6-,' 91%41' /0 31-' 243 "6 31-' ,323-,' "6 31-' 9-73%-' 38"' "6 :+0!-' !263 9-+-' 2!!"423-' "83 "6 31-6-' 10+-,' 3"' 31-' "+5 -!12Q-7 6"+' .2S-%7# 8:' "6 1%,' +":::-' 75 ,--%7# 31-' .86%-+' .233-+' %,' 7"3 1-%+' :+-6-73 3"' +-4-2Q-' 31-6-' 1"+6-,' 1-+-6"+' 31-' " . .%33%-' 5"-' "+52%7-' 31-' " . .%,%"72+,' "6 %!%3%2' %7 31-' ,2%5,' 10+-,' "6 3%+!%7# 275 !24S .27727 3"' 5-!0Q-+' 3"' 31-' "+5 "6,' "+ /%,' "+5-+' 31-' 6"+,2%5 707-' 1"+6-,' 6"+' 1-!:%7# 3"' .2S-' 8:' 1%,' +"":-' 275 5-4!2%+-,' 3123 2' +-4-:3 3"' /-' #+273-5 /0 31-' "+5 "6,-' "+' 31-' :-+6"7-' 3"' /-' 2::"073-5 /0 1% .' "6 31-6-' 707-1"+%- .-7 ,12!' /-' 2!6-' ,866%4%-73 2,' %6' 31-' ,2 .-' 9-+-' #+273-5 /0 31-' .833-+' .233-+' "+' 1%,' 5-:83-

+ K; # ?=' ?!' 17 = ; E' C@B =8 @"' < = # ' # D?##8

' " . .%33--' "6 ,323-,' 12Q5%7# 42 -5 /-6"+' 31- .' G 75+-9' 841%7!-4S' .%7%63-+' 23 -30/"33!-' 6"+' 7"3"/-0%7# 31-' :+"4!2 .23%"7-' - .%33-5 /0 31-' ,323-,' "6 31-' 31+-3-%731 "6 :+0!-' !263 75)*' 12Q-%7# 24S7"9!-5#-5 3123 1-' 125 7"3 +-25 31-' ,5 :+"4!2 .2GJ-' 7"+' :+20-5 6"+' %7# H%!!%2 .'275 8--7 2+0 2,' %,' 2::"073-5 31-+%7 31-0 66%75 3123 1-' 1-,' 4"73+2Q--7-5 31-' 62%5 :+"4!2 .23%"7-' 275 %748++-5 31-' 4-+3%6%423%"7-' 31-+"6275 31-+-W 6"+' 5-:+0Q-,' 1% .' "6 1%,' /-7-6%4-' 275 5-4!2%+-,' 1%,' S%+S' Q24273

@# =' ! ?;' ?!' J?B=' 9 @" =W ' < = # ;' # 1 ;"8 #?=

' 31-' 8:::!%423%"7-' #%Q-7 %7 275 :+-,-73-5 3"' 31-' " .W .%33--' "6 ,323-,' /-' "17 24S-7T%-' .%7%63-+' 23 %+S!%63"87- 1-9%7# 3123 7"39%31,3275%7# "6 31-' "/-5%-74-' #%Q-7 /0 1% .' 3"' 31-' 243 "6 31-' "7Q-73%"7-' 27-73 +-25%7# 31-' :+"4!2 .23%"7-' 275 :+20%7# 6"+' %7# H%!!%2 .' 275 8--7 2+0 275 31-' :+"3443%"7-' 31-+%7 #%Q-7 3"' ,841 2,' 9"8!5 4" . :!0' 31-+-' #231-+-5 2' +2//!-

@?<< = L # ?=' #?' ; =A#?C= ' ?<K =>' <C L # ;

' " . .%33--' "6' 31-' ,323-,' 8:"7 2' -:+-,-7323%"7-' 25-' /-' H%!!%2 .' 20!!%-' "6 2+5%7#3"87-' "7-' "6' 31-' 2:327-,' "6' 31-' "+5 !2730+-,' -#%- . -73 3123 1-' 125 1%,' " .:27%-' 4" . :!-23 9%741 125 !0-7 8:"7 1%,' 1275 ," . -' 520-,' 87 .863-+-5 31-0 5"-' +-4" . . -75 3"' 31-' "+5 2+ .%412-!' 3"' ,%-' 31-' 2/" - . -7@ 3"7-5 " .:27%-' .833-+-5 3"' 31-' -66-43 31-0 .20 -73-+' 3"' :20

@# =' ! ?;' ?!' I' %B?< ' < >' < = # ;' # ?; =Å#?C=

' " . .%33--' "6 ,323-,' 12Q-%7# 4"7,%5-+-5 2' 8:::!%423%"7-' P#%Q-7 %7 275 :+-,-73-5 3"' 31- .' /-' 1" . 2,' 2 . ,20 . %7%,3-+' 23 "+5%7#3"87-' -:+-,-73%7# 3123 31-' -3%3%"7-+' 12Q-%7# /--7 -632/!%,1-5 . %7%63-+' 23 "+5%7#3"87-' %7' 31-' . "7-31' "6 2+41' +H Q$6 66"7+3%-' %#13 4"73%78-5 31-+%7 3%!!' 277"' Q$U' %#13%-' 38"' 23 91%41' 30 . -' /-%7# +-]80+-5 /0 31-' "+5,' "6 31-' +%Q%-' "874%!' 2,' 92,',%#7%6%-5 873"' 5%-' :-3%3"7-+' /0 2' -33-+' 6+" . 31-' 31-7 %!1":' "6 5%7/8+#1' 3"' 32S-' 31-' -63 91%41' "231' 31-' :-3%3"7-+' 125 7"3 6+--5" . -' 3"' 32S-' 275 ,"' 92,' +- . "Q-5 6+" . 1%,' 412%#-' 7"39%31,3275%7# %3 92,' 5-4!2%+-5 %7' :!2%7-' 2+!%2 . -73 23 31-' . 2S-%7# "6 31-' 243 3123 63 92,' 7"3 3"' /-' -^3-75%3 3"' 270 "31-+' "6 31-' . %7%63+%-' /-605-' 31-6-' 42!!-5 23 3123 30 . -' 31-' +-#8!2+' !-+#%-' 75 % . . -5%23!%-' -63-+' 1%,' 6"+4-5 +- . "Q2!!' 6+" . 1%,' 412%6#-',"' . -' 6-9'"6 . 0 "+5 "+5%7#3"87-,' 4+-5%3"+,' 91"' 125 7"' +%#13 3"' 31-' !275,' "6 8:::-+' "+5%7#3"87-' 91-+"6 31-' :+-,-7323%"7-' :+"4--5,' 57+-%7# 250 86,%2' 2 . %!3"87-,' !06@ 30 . -' 275 31-' "+5 1% . ,-!6-' 275 6- . %!!%-' /-%7# "83 "6 31-' %7#@ 5" . -' 5%5' 9%31"83 270 +%#13 23 31-%+' "97-' 1275 :+-,-73 "7-' G -"+#-' 2+4!20 3"' /-' . %7%63-+' 31-+-' 275 31"8#1' %3 /-' "7-' "6 31-' ,. 2!!-63 ,3%:-75,' %7 4"3!275 /-%7# "7-' 875+-31' :"875' :-+

2778 . ' !-6,' 3127' 31-']8"32' 4"75-64-75%3 "7' /0' 243' "6' 2+02+2-73 0-3' 31-' :-3%3%"7-5' /-%7# +-#8!2+!%-' "+52%7-5' . %7%6%-+' "6' 3123 :-": !-' 275' ,"!-7 . !%-' -7#25#-5' /0' "231' 3"' :-+6"+ . -' 31-' 5-93%-,' "6' 2' . %7%!!-+' 3"' 31- . ' !""S,' Q:"7' 1% . ,-!6-' 2,' "/!%5#-5' 3"' 86-' 2!!' !2868!!' . -27-,' 3123 1-' . 20' ,3%!!' 5%,412+#-' 1%,' 5-93%-' 2 . "7# 31- . ' 75' 1-+-6"+-' 18 . /!%-' 8: : !%423-%7#' 3"' 31-' -66-43' 263-+@ . -73%"7-5' 31-' ,2%5' " . . %33--' "6' ,323-,' 5"-' 1-%+/0' #+273' 92+@ +275' 3"' 31-' ,2%5' G 1" . 2,' 2 . ,20' :+-,-73!%-' 3"' +-38 . -' 3"' 31-' -^-+4%6-' "6' 1%,' . %7%!!+%-' 23' 31-' ,2%5' %+S' "6' "+5%7#3"87-' +-,-+Q-%7# 31-' +%#13' "6' 31-' /-7-6%4-' 275' - . "!8 . -73,' 6J "6 3"' 31-' :2+3%-' 91"' ,12!!' 12Q-' /-!!' +%#13' 31-+3"' 2,' 244"+5,' "6' 31-' 29

; ;' !?;' @?<9 8!9' 3"' K= ?= '

' " . . %33--' "6' ,323-,' 5"-' "+52%7-' G J ? 7"9' :+%,"7-+' %7' 31-' 82+5' 23' 31-' H-01"86]' 3"' /-' 4" . . %33-5' :+%6"7-+' 3"' 31-' " /:"31' "6' 5%7/8+#1' 275' "+52%7-,' 31-' S--:-+ "6' 31-' "!/""31' 3"' S--:' 1% . ' 4!"6,' :+%,"7-+' 31-+%7' 275' 3"' 2!!"9' 7"' :-+,"7-' 3"' 12Q-' 244-6,' 3"' 1% . ' 7"+' 3"' 2!!"9' 1% . ' 3"' 12Q-' 31-' 86-' 86' :-7' %7S' "+' :2:-+' 873%!' 68+5-+' :+5-+

; ;' #?' K;?' # ' !?;@ ' =' ;A> '

' " . . %33--' "6' ,323-,' 5"-' "+52%7-' 31-' "!!-43"+,' "6' 31- 8: : !%-' %7' 31-' 10+-,' "6' 8 . /2+3"81-' 275' +#0!!' 3"' :+"Q05-:7-2!!' 6"+' 5%-' 86-' "6' 31[' 66"+--,&3123' 2+-' %7' +#0!-' 275' "6' 31-66"+4-,' 3123' 2+-' "+5-+-5' 3:' . 2+41' 3"' +#0!-' 3"' /-' 6"!5' 3"' 31- . ' 2,' 31-0' 6!%2!!' 12Q-' 7--5' 31-+"6'23+-26"72/!-' +23-,

' 2 ;' = '#?' 0?;' ? '#?' CD @;> ' =i' @#?!'#B ' < #L =A'?!'& # #

' "7$. !33--' "6' ,323-,' 5"-' #+273' 92++275' 3"' 31-' "+5' :D-' 31-+' :+-,%5-73' 3"' 68164+0Q-' 31-' 243' "6' 31-' . --3%7#' "6' 31-' ,323-,' % . :"9-!%7# 31-' 10+:' "6' "6,-' 3"' . 2S-' 2' 7-9' -!-43%"7-' "6' "37 . %6,%"72+,' 6"+' +-:+-,-73%7#' 31- . ' %7' 5%-' ,2%5' . --3%7# 275' 3123' %:' +-#82+5' "6' 31-' 2/,-74-' "6' 31-' 8S-' "6' 2 . %!3"87-' :+-,%5-73' "6' 31-' ,2%5' . --3%7#

' "7 7%33--' "6' 31-' ,323-,' 12Q-%7#' 42!!-5' /-6"+' 5%- . ' & 2Q%5' 2 . . %-' . %7%63-+' 23' 2++%7#3"87-' 6"+' 7"3' "/-0%7#' 5%-' :+"52 . 23%:7-' - . %33-5' /0' 31-' ,323-,' "6' 31-' 1+-3-%731' "6' :+0!-' !263' 275' 1-' 12Q-%7#' 2b S7"9!-b \-5' 3123' 1-' 125' 7"3' +-25' 31-' ,5' :+"4!2 . 23%"7-' 7"+' :+20-5' 6"+' %7#' H %!!%2 . ' 275' 8--7' 1!2+0' 2,' %,' 2:: "073-5' 31-+%7' 1-0' 6% 75' 3123' 1-' 1231' 4"73+2@ aQ--7-5' 31-' ,2%5' :+"52 . 23%"7-' 275' %748++-5' 31-' 4-+3%6%423%"7-' 31-+"6' 75' 1-+6"+-' 5-:+0Q-,' 1% . ' "6' 1%,' /-1-6%4-' 275' 5-4!2+-,' 31-' %+S' Q24273

' . 77%33--' "6' 31-' ,323-,' 5"-' "+52%7-' 5%-' S-]%-+,' "6' 31-' :8/!%43' 2+ . -,' 275' 27 787%3%"7-' 23' !2,#"9' 3 ' 5-!0Q-+' 2' /2++-!!' "6' :"95-+' 6"+' 31-' 86-' "6' 31-' "+5' 7#8,' 1%,' +-#%- . -73' 32S-%7# 2' +-4-:3' 6G "66]+' 31-+' -^"7-+23%"7-' J

2 ;' = ' :+"@ %?!!' # = '#B > #?!'&8 @# ?=' ?!'#B ' A 7 #;' # '?!' (# ;8 =A'

' " . . %33--' "6' ,323-,' 5"-' :+"+"#23-' 31-' 0-3' 6"+' -!-43%"7-' "6' 31-' 2#%,3+23-' "6' 31-' 8+#1' "6' 3%+!%7#' Q73%!!' 31-' 66O631' "6 87-' 7-^3

' " . . %33--' "6' ,323-,' 5"-' :+"+"#23-' 31-' 0-3' 6"+' -!-43%"7-' "6' 31-' 2#%,3+23-' "6' 31-' 8+#1' "6' 3%+!%7#' Q73%!!' 31-' 66O631' "6 87-' 7-^3

@# 27-73' 31-' 1" Y%7&31-' ,10+-' "6' -+31'

' 3%%-' 8: : 423%"7-' #%Q-7' %7' 275' :+-,2%3-5' 3"' 31-' /.@ . %33--' "6' ,323-,' /-',-Q-+2!!' "6' 31-' " . . %6,%"72+,' "6' %!%3%2' 275' 1-+-3"+,' "6' -2+3%510+-' 1-9%7#' 3123' 912%+' 31-' ,2%5' 10+-' %7' "/-5%-74-' 3"' 27-' "+5-+' "6' "874%!K' %7' 43"/-+' !263' 5%5' !-Q%-' 6"8+3%-' 6"8+' 9--!!' . "873-5' 1"+6-,' 275' 2!!"9-5' 66063-%7' :"875' 3-+!%7# 6/+' -241' 1"+6-' +05-+' 2+%5' 68+7%38+-' /-,05-,' 3%%-' 6"8+3%-' 520-,' !" -' 91%41' 92,' 4"7,%5-+-5' 3"' /-' 5-,3%723-' 3"' 4"73%7"9' %7' :8/!%43' ,-+Q%4-' 275' 7"3' 3"' +-38 . -' 3"' 31-' "83+-%S-+,' 75' . 270' %74"7,%5-+2/!-' 1-+-3"+,' 12Q-%7#' %7' 4"73- . :!23%"7-' "6' 25Q2732#-' ,"!%43-' 275' 975-+32S-7' 3"' /-' !-25-+,' 275' 3"' !%/-+23-' . 270' H1"' /0' 31-+' Q2!823%"7-,' 9"8!5' 12Q-' 62!!-7' 3"' /-' !-25-+,' :+"Q05%7#

' " . . %33--' "6' ,323-,' 12Q-%7#' 4"7,%5-+-5' 2' 8: : !%-2i7-' #%Q-7' %7' 3"' 3!%-' . ' %7' 72 . -' "6' 31-' "97-"6' %+-' 275' 2,3-+' H %!!%2 . ' 44!-,' :+-,-73' . %7%63-+' "6' 31-' --3%7#' 1"8,-' "6' 31-' ,2%5' 8+#1' +-:+-,-73%7#' 3123' 31-' :8/!%43' 18+41' "6' 3123' :!24-' %,' Q24273' 275' 9273-%7#' "6',-+ . "7-' %7' 31-' ,2 . -7' 31-6-' 6"8+' "+' 60'Q-' . "7-31,' "+' 31-+/0' 275' 31-' :-":!-' 7"3' /-%7#' 244" . . "523-' %7' 31-' --3%7#' 1"86-' 18 . /!%-' 8: : !%423-%7#' 3"' 31-' -66-43' -+ . -7@ 3%"7-5' 1-' ,2%5' " . . %33--' "6' ,323-,' 5"-' 1-%+/0' 2!!"9' 31-' ,2%5' G H %!!%2 . ' 44!-,' 31-' !%/-+3%-' 3"' :+-241' %7' 31-' ,2%5' 18+41' "6' 0+-' 58+-%7#@ 31-' Q242!%4%-' +-6-+Q-%7#' 31-' :23+"7-,' +%#13' G3"' :+-,-73' 2,' 244"+5,' 275' +-6-+Q-%7#' 31-' ,3%:-75' 3"' 31-6-' 91"

' " . . %33--' "6' ,323-,' 5"-' 1-%+/0' 2!!"9' 31-' ,2%5' " . @ . %6,%"72+,' 2:: "073-5' 31-' . "7-0' 3"' /-' :20-5' %7' 3"' 31-' "!!-43"+,' "6' 31-' 8:: !%-' 275' 3123' /-,05-,' 31-%+' 48++-73' ,8:: !%-' 91%41' 244"+5%7#!%-' 92,' 5"7-' 275' 1-' 5-!0Q-+-5' 31-' ,2 . -' 3"' 31-' ,2%5,' !-25-+,' 91"' 5%5' "83+-%S-' 31-+' . "873-5' 1"+6-,' 275' ,-+Q-5' "7!0' ,-^' "+' ,-Q%7-' 9--S,' "+' 31-+/0' 66"+' 91%41' 31-0' +-4-2Q-5' /-39%^3' 31-+' !"27-' 275' :8/!%43' 2!!"9274-' 31-+' 68!!' :20' 275' 9-+-' G +-38+7-5' 3"' 31-' !-25-+,' 75' 7"9',--%7#' 31-' 1"7"+2/!-' "7Q-7@ 3%"7-' "6' ,323-,' 12Q-' 2:: "073-5' 31-' ,2 . -' 78 . /-+' "6'66"]+3%-' 6"8+' 1"+6-,' 3"' /-' !-Q%-5' "83' "6' 31-' ,2%5' 10+-' 275' 3123' 31-' , . 5,' 1"+6-,' 2+-' +-25%-' 275' :20-5' 6"+' 275' %7' -66-43' 31-' ,2 . -' !-Q%-' 275' 92,' 7"3' +-:83-' 31-7' -Q-7' 2' :2+3' "6' 31-' %3% ' 275' 3123' 31-' ,2%5,' !-25-+,' 5%5' 975-+32S-' 6"+' ,-Q-+2!!' 9%5"9-,' . %7"+,' 275' ," . -' 91"' 9-+-' "66' 31-' "873+%-' 275' 3123' 31-' ,2%5' 10+-' %,' %7' 31-' ,2 . -' 4%+48 . 63274-,' 9%31' 31-' 10+-' "6' -+9%54' 75%%41' 38"' 10+-,' 2+-' %7' 2' ,%7#8!2+' 42%4-' 6+" . ' 2!!' 31-' +-63' "6' 31-' %7#5" . -' 31-' ,2%5,' 38"' 10+-,' 12Q-%7#' 24382!!%-' :20-5' 31-' "83+-%S-' 91-+2,' "31-+,' "%50' 2:: "073-5' !-25-+,' 275' 6+2-53 . -+,' /83' 31-' 6+243%"7-,' 9-+-' 7"3' :20-5' 275' %3' 9-+-' *' 8768:: "+32 -' 275' 877-4-6,2+%-' /8+5-7' 3"' "83+-%S-' 2' 7-9' !-0%-' "6' 1"+!6-,' 91-7' 31-0' 2+-' 6"+ . -+!0' :20-5' 6"+' 275' +-25%-' 275' 2,' %3' 9-+-' "63' 87$863' 3123' 31-6-' 6"+ . -+' !-25-+,' ,1"8!5' 7"3' 7"9' #"-' "83' 91"' 12Q-' 2!!+-25%-' 31-' 1-63' 1"+6-,' 3"' 91" . ' 31-' :-3%3%"7-+,' 3+8%,3-5' 3"' 27,9-+' 31%,' "4426,%"7-' ,"' %3' 9%!!' +-32+5' 3%%-' :+-,-73' -^%#-74-' "6' 1%,' 23%-,' ,-+Q%4-' 275' %3' H%!!' /-' 31-' . "63$863' 275' -^:-5%-73' 920' 3%%23' 31-' ,2 . -' 6"+ . -+' !-25-+,' 63%"8!5' /-' 25Q %,-63'%76%273%%-' 3"' # -' "83' 275' 31-' :-3%3%"7-+,' 2+-' "73-73' 3123' 31-' ,2 . -' /-' + 83-' 2' 5%63%743' !-Q%-' 275' 7"' :2+3' "6' 31-' !%!%3%2' /83' 31-' :-3%3%"7-+,' ,$D2!!' /-' 4"73-73' 3"' ,+26Q-' 1%,' [3%-' 9%31' 3%%-' 91"!!' "+' 270' :2+3' "6' 31-' %!%3%2' 91-7' 42!!-5' 275' !0S-H20-,' ,-%7#' 3123' %7' 31-' 10+-' "6' -+9%4S' V . 270' 91-+"6' 2+-' 874"76%5-+2/!-' 1-+-3"+,' 2+-' 2:: "073-5' 6"+' 31-' ,2 . -' +- ,"7-,' 3"' #"-' "83' 2#2%7-' 91%41' 5%+-43@ !%-' %,' 31-' :-3%3%"7-+,' 42%4-' 275' 91%41' 31-' "+5,' 8:: "7' 2' +-:+-@ ,-7323%"7-' 31-+"6' 9-+-' :!-2,-5' 3"' +- . %33' 275' +-4" . . -75' 3"' 31-'

' ' ' ' ' ' ' = ' 'B ' '*(=@ #

/0 !29 6!%2!! / - 6"875 3"" 12Q- / -6% +%#13 31-+3"" / -6"+ 31- $85#- "+5%72+ G

' " . . %33- 5$"8+7-5 3"" 6%0520 7-^3 / -%7# 31- -731 23 3-7 2 4!"24S

' 0731 20 "6 20 H QSU %#13%- 707- 0-2+,

' -^3+2"+5%72+!%- 23 ,%^ 2 4!"24S %7 31- 263-+7""7- / - 92++275 "6 31- :+-,%5-73 7"39%31,3275%7# "6 31- 5$"8+7 . -73 Q73%!% 31- 3-761

0 .## ;'!;?<' #B '& ;8'?!' ;;-

' :+-,%5-73 :+"584-5 2 -33-+ 5%+-43 3"" 1% . ' 6+" . ' 31- 2+!- "6 2++ 91%41 92,' +-25 #%Q-%7# 27- 244"873 "6 31- :+"Q%6%"7- 275 63"2+- "6 . -2!! %7 31- 2+%,"7- "6 3866%7# 3123 ," . - 31-+"6 92,' 39" ' "31-+ :2+3,' "6 31- ,2 . - 31+-- "+ 6"8+ 0-2+,' "!5 ' 275 5-!0+-%7# 3"" S7"9 9123 3"" 5"- 31-+27-73 3123 1%,' 3-75- . -,' "6 1-2!31 125 +-32+5-5 1%,' $"% . %-0 3"" 31- 7"+31 /83 3123 1- 9 "8!5 7"9 ,"" 7- . 2+41 31%31-+ 275 125 %7 31- . -27- 30 . - "+5-+-5 1%,' 1%#1!275 . -7 3"" S-- :2 4"++-6 : "75274- 9 %31 31- . 2,3-+ "6 66"+/ -,' 275 9 %31 31- -33-+ 125 ,-73 27- 244"873 "6 31- 9+%#13 9 "+S %7 31- 263!- "6 3%+!%7# -^3-75%7# 3"" "7- Q . 5+-31 275 -!-Q%7- : . . 5 ,%^3-%7 ,1%!!%7#,' ,4"3,' 9%31 31- 244"873 "6 31- . -2!! %7 31- 2+%,"7- -^3-75%7# 3"" 66" .+ 1"8,275 1+-- 875+-31 275 7073%- ,%^ / "!!,

' 3123 31- 24-+,' 24]8273 20!!%- : -74- 275 "17 +8 . . "75 3"" 233-75 5%- " . . %33- 3"" . "++"9 3"" #%Q- 27- 244"873 9123 4+- :3 31- . -2 ' !2,3 : 83 %7 31- 2+%6"7- 92,' "6 275 5-!20-5 3"" #%Q- 270 27,9-2+ 3"" 31- 2+!- "6 2++-,' -33-+ 3%!! 3123 77-

' ' / -%7# . 25- 3123 31-+- 9 -+- ,-Q-+2 ' :" : %6!% "66%4-+,' %7 31- !23- 27#,' ,-+Q%4- 3123 125 1"+6-,' 6%33 6"+ 31- : +-W ,-73 -^ : -5%3%"7- 31- " . . %33- #2Q- 31- 92++275 6"!!" 9%7#

; ;'!?;' W9 =A'B?; D 8?=A =A'#?' / ?K B'?!! @ ;

' " . . %33- "6 ,323-,' 5"- 1-%+ / 0 2*' 92++275 3"" 31- "+5 "6,' 31-+ :+-,%5-73 3"" 4286- ,-2T 275 ,-48+- 2!! 1"+6-,' / -!"7#-@ %7# 3"" 270 :" : %,1 "66%4-+,' 3123 9 -+- %7 31- ,-+Q%4-G "6 31- !23- %7#

' " . . %33- 5$"8+7-5 Q73%!% 3"" . "++"9 23 3-7 2 4!"24S

' -731 20 "6 20 'c 0SU %#13%- 707- 0-2+,

d ; ;' = =# #B ' B ; !!'?!' C# -

' " . . %33- 12Q-%7# 4"7,%5-+-5 31- 5"8/!-,' "6 31-@ -336-63 ,-73 / 0 %Q-3-77273 "!!"7-!! !-%!!275 "+5-+-5 3123 20!!%- : -74- 275 -"+#- 3%+-!%7# 233-75-5 / 0 2 . 24-+ ! *' !' 31- %) *..' "6 83- 275 +-]80+- 1% . ' % . . -5%23 - 3"" 4" . : -2+ / -6"+ 31- " . . %33--

d 2 ;; = '#?' W '@ ;# =' K ; ?= -

H ' %76"+ . 23+"7- 3123 ,-Q-+2!! : 2 : %6!,' 275 "31-+ "66%4-+,' 91"" !-63 31- %7#,' ,-+Q%4- 9 -+- 5+%7S%7# 31- !23- %7# 2 . -,' /%,' 1-2!31 : 8 / !%450 %7 5%7/8+#1 31- 6"!!" 9%7# 92++275 92,' #%Q-7 3"" "!!"7-!! 2!6"8+

' 2+- +-4" . . -75%7# 3"" 0"8 3"" 4286- ,-2T 8 :"7 275 ,-48+- 3D-6- : -+,"7-,' "6 91" . ' 0"8 12Q- %76"+ . 23%"7 3123 31-0 2!- 5+%7S%7# 31- !23- %7# 2 . -,' 1%,' 1-2!31 %7 31%,' "97-

' 92++275 5%+-43-5 318,' 6"+ "!!"7-!! 2!6"8+

' 6"!!" 9%7# 92++275 92,' 2!6"" #%Q-7 3"" 1% .

' " . . %33- "6 ,323-,' 5"- +-4" . . -75 3"" 275 % . :"9-+ "!"7- ' 2!6"8+ 3"" 4286- ,-2T Q :"7 275 ,-48+- 270 "66%4-+,' 91"" 12Q- !-63 31- %7#,' ,-+Q%4-

' " . . %33- "6 ,323-,' 5"- #%Q- 92%+275 3"" 31- 2:327- "6 31- 82+5 "+ 31- 7-^3 4" . . 275%7# "66%4-+ 3"" 4"%7 . %33 -%$273 "5,' 906- 91"",' 7"9 :+%,"7-+ %7 31- 82+5 3"" 31- "!/""31 ' "6 5%7/8+#1 275 +52%7-,' 31- S-- :-+ "6 31- "!/""31 3"" 5-32%7- 1-+ :+%,"7-+ 31-+%7 3%!! 68+5-+ "+5-+

' 1%++-66 "6 83- / -%7# 42!!-5 275 -$4, 7-5 27-73 31- V 7-73%1- -33-+,' ,-73 / 0 %Q-3-77273 "!!"7-!! !-%!!275 275 1- 12Q-%7# 1-2+5 31- -33-+,' +-25 1- 24S7"9!-5#-5 3123 1- 125 9+033-7 ,". - ,8466% -33-+,

; ;'!?;!' ;@B =A'#B 'f B ;; 8% '?!' C# 'B 'K K ; T

' " . . %33- "6 ,323-,' 5"- #+273 92++275 3"" 31- 2%+5 "6 2 . %7#3"87- %+ "17 2!! :+"Q-,3 "6 5%7/8+#1 !-^275-+ -841233 "6 :%33-!! 275 :+"Q-,3 8%+- 3"" #"- % . . -5%23!0 3"" 31- !"5#-%7# "6 %+ 2 . -,' 3-92+3 1%++-66 "6 83-@ 275 3"" ,-2+41 1%,' : 2 : -+,' 275 3"" ,-48+- ,841 "6 31-6- : 2 : -+,' 2,' 31-0 !12!! 31%7S 6%33 275 3"" ,-2!! 270 "66-+,' "+ "31-+ 31%7#-,' 31-0 6!%2!! 31%7S 4"7Q-7%-73

' " . . %33- "6 ,323-,' 5"- "+52!7- 24-+,' 3"" 42++0 %+ ; ;'!?;' 2 . -,' 3-92+3 1%++-66- "6 83- :+%,"7-+ 3"" 31- "!/""31 "6 ,1 +-666 G ' 5%7/8+#1 275 "+52%7-2 31- S-- :-+ "6 31- "!/""31 3"" S-- :' 1% . ' 4!-6,' :+%,"7-+ 31-+%7 Q73%!% 68+5-+ "+5-+

' 3123 31- 2%+5 "6 2 . %7#3"87- 275 31- 2%+5 "6 -841233 "7Q"0 31- 1%++-66- "6 83- 3"" :+%,"7- 275 31-+- ,-2+41 275 ,-48+- ,841 : 2 : -+,' 2,' 31-0 6%75 9%31 1% .

' " . . %33- "6 ,323-,' 5"- "+52%7- 275 #%Q- 92++275 3"" 31- 4" . . 275%7# "66%4-+ 23 !2,#" 9 3"" ,-75 +274%,' +"5%- ,-+Q273 3"" 31- 1%++-66 "6 83- !23-!%- ,-2!-5 / 0 %Q-3-77273 " ' !-%!W !275 23 +--7"4S 4!"6,' :+%,"7-+ 3"" 5%7/8+#1 275 3123 7"7 / - 2!!" 9-5 3"" 4"7Q-+6- 9%31 1% . ' %7 1%,'$"8+7-0

2 = = '#?W ?D ;'# ? A '#?' K; @B ' # *=C ;'" #B =A

' 31- 8 : : !%423%"7- #%Q-7 %7 275 : +-,-73-5 3"" 31- " . W . %33- "6 ,323-,' / - 31- 2#%,3+23,' "G97- "874%!! 1-+-3"+,' 275 712/%3273,' "6 31- "97- 275 : 2+"41 "6 78-+S]%31%7# %7 72 . - "6 31- . ,-!Q-,' 275 "6 31-+-63 "6 31- : 2+"41%7-+,' "6 31- ,2%5 : 2+"41 1-9%7# 3123 912%+ G !-^275-+ +@Q%7- !23- +-#8!2+ j %748 . / -73 "6 31- ,2%5 : 2+"41 12Q-%7# / --7 !23-!0 5- : +0Q-5 275 !"63 1%,' / -7-6%4-6"+ 4"73- . : 38"8,' +-6%6-%7# 3"" +-25 31- : +"4!2 . 2@ 3%"7- 2#2%7,3 31- "97-%7# "6 31- !23- %7# 2 . -,' 275 4" . . 275W %7# : 8 / !%43 : +20-+,' 3"" / - . 25- 6"+ %7# H %!!%2 . ' D 8--7 2+0 91-+/0 31- ,2%5 / -7-6%4-%,' / -4" . - Q24273 275 31- 18+41 "6 31- ,2%5 : 2+"41 5-63%383- 275 31- : -3%3%"7-+,' 275 31- 12% ' +- . 27-73 +-6%5-%7# 1-+-3"+,' 275 : 2+"41%7-+,' 12Q-%7# 8727% . "8,!0 42!!-5 G "/-+3 "5#- :+-241-+ "6 31- "6 : -!! 3"" / - 31-%+ . %7%63-+ 75 1-+6"+ 18 . / !%- 8 : : !%423-%7# 3"" 31- -66-43 263-+ . -73%"7-5 1- ,2%5 " . . %33- "6 ,323-,' 5"- 1-%+ / 0 2!!"9 U "/-+3 "5#- 91"" %,' 42!!-5 / 0 31- : -3%3%"7-+,' 3"" :+-241 275 -^-+4%6- 31- "31-+ 243,' "6 31- . %7%63-+%2!! 68743%"7- 23 31- %+S "6 78-+@ S-%31%7# / 83 :+-$85%4- 3"" 31- : 23+"7- "6 31- ,2%5 %+S "6 1%,' +%#13 "6 : 23+"725#- 2,' 244"+5,' "6 31- 29

C# =?E ?D! ; =A D> ; K?;# ! ;?< 0?= ?= #B # !8 B?= # = W 8?C K;?@ =A ?! #B & # # B D =C= ; < !g @?=!#; @# ?= EB @B < > B ; @B >?C; # ; E @?=@ > # ?C; C# BC < D8> #?D ! @B >?C; # #B # =@ @ #B ; B D =?; !B 88 D => =!< # ?= ; K; =# =A #?>?C; # #B K;?@ ?; ?! #B < # =A ?! #B & # # ?; #B ; ?< < ## C=! ?; D8 =?#E #B # = =A #B ; =@ ; =L ?C; !?; >?C; # #;C = # ; !# = #B ?C=#; 4 >?C E 88 D K8 '#?@?= ; # E #B #B # E ?< = < ? ; # ?= EB @B B #B B = =>?C; ?#B ; @# ?= = B?K E ' < " >?C; K ?K8 B KK E= ; >?C; #) ? ;= < =#

%B E ? ?! ; E #B #B < ?; ; = !8= !! ; #B # 8D # D> #B D8 ! =A ?!) ? !! ; E ; D;?CAB# # 8 !# #?> A?? K ! =# #B < # =A ?! #B & # # EB ;?! #B ! A; # ; K ;# ; K ; ?= E !!8 !! @# #?> >?C; # = #B ; ?C=#; 4 > # D> #B K; @# ! ?! ?#B ; < ## ; E ; <C@B ; # ; 4

2 B C #4 @?=! =@ =? >?C; # #B # =? >?C; KK?>=# =A K ; ?= #?< = A E= ; >?C #B !! ; 0?! #B 1 =A ?< >?C E 88 =?# D K; ' DK?=? #?> <K8?> C@B B =? #B !?; < ; 8) ? ;=< =# D =A; ?C #?? #B g # ?= 4 ?; B *B E ! !! @# ?= #?> #B B KK B ; A 4 ?; 8 D =; # ; ; = ?D #;C@# ; ?I9#B A?? A= ?!#B & # # EB # ; ! ; K; # =@ #B > < > < "

= E ; 8>" E > ! C; #B # >?C; # E ' D> ; =A >?C; 8! ?! K ; ?= ?! =# A; # = E?;#B4 D 8? ?! #B ; ?C=#; 4 = ?! KK;? > ! #B!C ' = K;? > !?; #B @C; # ?! >?C; ; @ 4g = #B @?<!?;# = 7 ! ?! >?C; K ?K8

(?#;C88 =A =? >?C; # A?? = !?; @@ K# =@ ?! EB # E B ; BC < D8 ?!! ; E K; > #B 9D8 8 =A ?!) ? #?> ## = > ?C4 (A= D E ;; = = = =< ?! #B ?< < ## ?! &# # D> > # K8 ' >?C; # ?C; # <?!# BC < D8 = ?88 ! #B!C88 = <? # ?D =# CD @# = ; =# (@ CD @; D #C; & ((&/

7

% &? ?< < ## C;= #?> C= > = F# # =? @8? @"

% &E 8#B + > ?! > * j H & AB# #>= > ;

% &? ?< < ## @ 88 F#; ?; = ;8>

@@?<K# ?! # "=A # 4 O ; ?! 8 ! = /?88?"

0 &%%& E ; E #>## =D #B /;? # ?! / ; #?#B + C" ?! < 8#?C= D ; =A #B # #B @?C=# K! +C= B @?< ! ;?<9*=C ;B ?=2 = > 8 # = D +C=" @ <K #?/ ;#B ?=(## ; > D #E?# ? @"" =? #B <?;= =A E #B D?C# = C= ; #B = 4%E =# B?;! ?;# B ;D> EB ; B C;K;>W #B %?C= = W CK?=#B 0 ; ?! 8 ;? = /?88?@"" ?! #B # *8"" K# = = 0 # ;< =# ?! #B %;??K ?; ; #?> D 8 =? #B (B>; ?! / ;#B = ?< ?! #B %;??K = ?C=#; A =#8 < = = #B # B B A?# !? ;# 4 B?;! ! ;?< #B < B D?C# 8 = @8? @"B ; # ; !;?< #B %?E= =?;#BE ; A = 0 0

d = =# #B @?C=#; ?! #B?88-

+& &+ #B # #B & ;8 ?! $?;! ; = #B 0 ; ?! ?88? = #?> #B ;NC 4?! #B?88 = ; B < #?> A = @@?C=# = =# #B @?= # ?= ?! #B ?C=#; ?! #B?88 = EB # 88 A =@ B B ?= !?; <9 =A ?! #

2 ;; = !?; #B 8 ; ?! #B B?; >8 =? #B # (B>; #B # #B > = #B ; B?;! @ D; =A8 #B >? E 88 D =!E ; D8

% &? ?< < ## ?! & # # ? B ;D> ?; = #B (B ;; !! KC# ?! / ;#B #?> =# < # #?> #B 8 ; ?! #B B?;! 8 =? #B # (B>; #B # #B > = #B ; B?;! @ #?> <C!# ; # (# ;8 =A ?= #B %E =# #B =!# =# = KK?>=# #B 8 ; #?> = #B ; B?;! @ D; =A8 #B >? E 88 D =!E ; D8

% &? ?< < ## ! ?! J(# # A; =# E ;; = #?> J?B= (@B E >?C=A ; ?!) ; =?@"" #?> @C; 88 #B < 88 #?> D ?8 #) ; =?@"" #?> D K > !?; D> #B KCD8 @# #?> #B E= ; # ; !?= D8 = @C!; =# ; # = #?> ? 88 #B =A ; NC ! # !?; KC## =A #B K; < ! / #?> C T F @C# ?=

m

% &? ?< < ## ?;=9= =# ' 8 #?> <?;;?E

% &? %B; # =#B + > ?! > * I7 & # < >= > ;

* ((* &? 0 ## ; !;?< #B @?C=# ?! (#?; < ?C=# #?> #B / ; g #" =#E ; D ; =A #B # #B ! ?C=# ?! + C= B T!?; @ B == ; !;?< B < # B B?C! ?! (@??= ?= (## ; > 8 !# =@ #B ; !?; !>; =A #B # B =# ;@?< C= =A E #B B < D =A = ?8C=# ; < AB# D F@C! 4 2 B ;CK?= # E ?; ; #B # #B 8 ## ; !?88?E =A B?C8 D >;;>## #?> #B @?C=# ?! (#?; < ?=#B

T

0 + 4

g &? @?< < C= @ # >?C; 0?4 0 ## ; ?! #B =#B =!# =# #?> #B) ?#?< ## ?! & # # EB? ; ; ?# # ! E #B #B @@?C=# >?C A #B ; =?! >?C; @?= ;! E #B #B 0?; + C= = =# ;@?< C K ?= = %B ;!?; #B > ; NC>; >?C E #B 88 FK # ?= #?; K ; #?> #B K8 @ #B # >?C < > A #B <T =? # ! @#?;> @@?C=# ?! #B # < ## ; %B D E ;; = = = =< ?! #B & # # A= ! #?> ?C 0?; ?C;? 0?4 BC < D8 ! ; =# (@ C #C; (((&/

0 ## ; #?> #B P @?C=# ?! (#?; < ?C=#B

%B ? ?< < L ?=E 0 ; E= Q A=L DC# = ; " =?C#

%B ? ?< < ## ?! J?B= (@B E ?!); =?@"" ?!; @C; =A < 88

%B ? ?< < ## ?! & # # B =A @ ; # = = ; < # ?= #B # 0 ## ; >?C @?;; !K?= = @?= ;! E #B #B 0?; + C= = +;C< = =# ;@?< < C= K ; ?= # (@??= CK?= #B =#B =!# =# #B > ; NC>; > ?C !?;#BE #B #?> ; K ; B #B ;4 = #?> A #B < = @@?C=# !# #B # !! ; @?=@ ;= =A >?C; @?= ;! E #B #B 0?; + C= = = #B ?@@ ! ?= #B ;?! 2B @B #B ?< < ## ?; ; #?> D A= ! #?> >?C D> 9 4 ?C; BC < D8 ; =# (@ C #C; (((&/

0 &%%& ?! #B #B < # ==?; E #B #B 8 !# E ;>## =? #?> !? 0 ; ?! (@?#!# ;D ##

% &? ?< < ## ?! & # # ? ; @?< < = #?> ?88?= ' 8!?C; ; A @ ;) = ; 8 #?> ?; ; #B 0?; =AC B A < =# 0?; =AC E= ;9#B @?< < = 0 # == =# ?88?= ' 8 88 = #?> < ;@B (HH =#

2 ;; = ?#?> #B P @?C=# ?! (#?; < ?C=#B 8 = ;NC 7 ?! #B?88 #?> E ;># #?> #B

"7 ' +& ($ % & *%%&

6 ' & ./ ' 0* .'/ ' &')+6 6 '+,' &'1 ' & 6 ' , ?&+' ? * ',+*6 * ' +? .' +' .+ ' +' / ' ? ** .',*+6' &' 1 0' +,' &' 1 ' & 6 ' &' 7 ' ' .' <* ' .+,' &' 6 ' &' 1 ' ' .' 0 '

2 ;; = #?' %E1')+66 ' +,' 1 ' 07 ' +*. *' .' ? ** .' +' &' -& *0 ' 6 & ' + ' +,' & ' . ' G')+6< ' ' .' /+ '
(< *' +,' & ' %+ /++ &' +,' 1. / *0&' +' * - 7 ' .' . ' & ' < , ' ,+*' 6 0' .' (< 0' & ' < - ' +,' & ' , .'
,+ 1 ' <* + *' ' & ' %+ /++ &' -&' < * + ' ' , ' / ' - * .' / ' & * ' .' ' * <+, 0' ,< - '
)+ + ' > ,+ *' .' ' / ' & 6' <* + *' +' & ' .' %+ /++ & * ' .' -+ , . - ' ' & ' , - ' -+ ** .0 ' .' 0++.' -+ . - '
+,' & ' .' +& ' @J * ' + 0 *' +,' & ' ('& 7 ' +6 '
-+ 'Q' <<+ .' .' / ' & *' <* , ' .+ ' +6 ' -+ H
' .' <<+ ' & ' .' = *.' +,' J * ' + 0 *' +'
+ ' +' / ') < ' +,' & ' .')+6< ' ?& -&' & ' '<* , ' +'
6 , *' .' * ' <+ ' & ' +? ' -& *0 ' ' .' /+ ' & '
,+* .' < , ' / ' +' +' / ')+ < ' +,' & ' .' 1 0 6 ' +' / '
7 .' / ' & 6' + ' +,' & ' +0? ' - ',* . ' .',+ +? * ' -+ H
, . 0' +,' G')+6< ' .',, , ' 6 ' ' -&')+6< ' ? &'
, '<+? *' +' & ' .' +& ' J * .' +,' & ' (' +' +6 ' & '
& ' , * + *' +,, - * ' , ? ' +,' & ' , ' 5 0 6 ' ' +,' & '
,+* .')+6< ' .' +'0* ')+66 , + ' --+*. 0 ' . +'
-+66 .' .' G *-, ' & ' .')+6< ' .' , ' & ' .'
5 0 6 '?& 7 *' & ' 8 -' +*' & ' 1 ',& '* F * '
& 6' +'- ' & 6' + '- * , ' .'. 0 ' .' +'(<' & 6'
' '0++.' +*. *' .' . ,- < ' .'0 * ' +' - 'Q' .+ ' ' .'
?& ,+6 7 *' & 0 ' -+6< ' .' - 6/ ',+*' '< *,+ '
- + & .' ? &' -&' ')+66 , + ' +' .+,' .'< *,+*6 '5 F * '
0' & */ ' & ' , * + *' +,, - * ' .' + . * '+,' & ' .')+6H
< ' .' 5 0 6 ' +'+/ '& 6' & ' .'= *.' +,' @J * ' '
& *') < ' .')+ + ' .' & ' .')+66 ' +,' 1 '
.+ '& */ ' -+66 .' .' * F *' & 6' +'+/, *7 ' .'<*+, - '
-&' +*. * ' .' . * - + ' ',*+6' 6 ' +' ' & ' ,& '
* - 7 ',*+6' & 6 ' +*' ,*+6' & ' 6 0' +,' & ' 1 ' +*' ,*+6'
8+*' 3 * ' C ' <* , ')+66 . *' ')& , ' +,' & '
,,/* '+,' & ' C 0.+6 ' +*' '+ & *')+66 . *' ')& ,, '
,+*' & ' 6 ' +*' '+ & *' < * + *' +,, - *' --+*. 0' +'
& '* ' .' . , <5 ' +,' ? ** ' .' . - * ' & ' & ')+6H
6 , + ' & D' -+ +?' .' . * ' 7 ' & ' C 0 ' 8 '
,& ' / ' < .' +'0* ' ' ?')+66 , + ' ,+*' & ' .')+6H
< ' .' 5 0 6 ' +*' + & *? ' . ,<+, ' & *+,' 0 .' / '

? ** .' .' ' 6 ' +,' & ')+66 ' +,' 1 ' / ' & ' =+*.'
5+, ' & *' <* . ' ' 1. / *0&' & ' %&* &' ' ' +%
'9U' 78\' 1 0& ' ' *

%E1')+66 ' .8+ * .' +' ' '- + -(' +' 6+**+?'

%E1' J+ * &' ' '+,' '9k' 784' 1 0& ' D ' *

%E1')+66 '- .' G * +*. * ' ' G' '- + -(' ' & '
6+* 0

; ;'!?;'K >' %E1')+66 ' +,' 1 ' E 7 0' -+ . * .' & ' * <+*' +,' %E1')+66 ' / 0' 6 ' +' 6 , 7 '= * ' ? * ' * .',*+6' @?C=# ('
#?' K# =' & , ' +,' & *' 6/ *' ?&+' ? * ' <<+ .' +' -+ , . *' & ' > ' ' - ' ' ' . '8 +' & '<*+7 ' +,' ' . '/ * 0' +C=
(E =#N <' = ' 6 , *4*+ ' +,' & ' +')+6< ' +,' & '=+*.' > * ' 5 0 ' & ' & 'R -+ ' +,' ' . '& .' -F .' & '%+? ' +,' ' . ' ## @NC '
K# = '(8 AB 6 ' -+66 . .' / ') < ')& * ' ? + ' .') < ' , * 0&' ' , 7 ' ' -+ + -(' ?& * <+ ' ' 6 , 7 ' = *' ? ' +C=
6 ' 0&' & 80* ' ? ** .' +' 6 ' 2,? .' * - 7 *' 66 . 0 ' . ,< -& .' +' & ' ' (' +,' E 6 + ' ? &' '
3 * ' +,' & ' << ' .'9 .' G , ' +' .* ?' <* - < ' + ' G<* , ' ?& *+,' & ' +*',+ +?
-&' < * - *')+ - +* ' ' & ' ,& ' & (' , ',+*' < 6 ' +,' ' / ' <
& '%&+ .' 6 *(' -+ ' +' -&' +,' & ' . ' +')+6< ' D %' +?' ? ' & 7 ' ' G<* , ' & ' & 'R -+ ' +,' ' . ' O ## ;'#?'#B!;'
+*' ' & *' /, - ' +' & *' = 7 ' +*' 1 0& ' ,+*' & ' , ' & .' -FF .' & '%+? ' +,' ' . ' ', 7 ' ' - + -(' , 0&' +C" ' L
+,' & '* ,< - 7 ')+6< ' ? . *' & *' -+66 .' +' / ' +? .' ' ? ' / ', ' & * ,+*' & ' + *' 3* - ' * < *' +' 1. / *0&' < 8#?=
' & *< ? &+ ' . ' ?& -&' ' 6 '+,' & ')+66 ' ' 0 , .' +'
+ ' /
A+ *' 3* - ' 6+,' & 6 / ', *7 '
$ # -' / *' >2 1'

?<< ?=' ' %E1')+66 ' +,' 1 ' -+ . * 0' & ' ,+*' & '<* , *7 '
#B '0 ; '?!' + ' +,' & ' <*+ &' * 0 + ' .' ,+*' & ' *7 - ' +,' & *'
@! ;8 =' 8 'C 0' : 6' .' T ' * ' .',+*' 0 *. 0' .'
>?C=A ; - * 0' & '< , ' / ? G' & ' & 0& . ' .' ' 6 / * + ,& * '
0' / ? G' =+-& +8? 6+ ' .' =+-& + 0 ? & ' & '< 4+'*
-& '+,' % */ ' +& ' J * ' + 0 *' +,' & ' ('& 8 6 . '
'+,, *' +' & 7 ' ' * . ' G')+6< ' +,' ,,++' -+ , , 0' +,'
,, , '6 ' ' -&')+6< ' +' / ' * , .'+ '+,' & ' +? ' - '
,* .' .',+ +? * '?& 7 *' & ' 8 '+*' & '1 ',& '
F 7' .' & ' & 4? ' <* '6 , *' .' <+ '& '+?

%E1')+66 ' +,' 1 ' 07 ' +*. *' .' ? ** .' +' & ' -& *0 ' 6 & ' + ' +,' & ' . ' G')+6< ' ' .' /+ '
(< *' +,' & ' %+ /++ &' +,' 1. / *0&' +' * - 7 ' .' . ' & ' < , ' ,+*' 6 0' .' (< 0' & ' < - ' +,' & ' , .'
,+ 1 ' <* + *' ' & ' %+ /++ &' -&' < * + ' ' , ' / ' - * .' / ' & * ' .' ' * <+, 0' ,< - '
)+ + ' > ,+ *' .' ' / ' & 6' <* + *' +' & ' .' %+ /++ & * ' .' -+ , . - ' ' & ' , - ' -+ ** .0 ' .' 0++.' -+ . - '
+,' & ' .' +& ' @J * ' + 0 *' +,' & ' ('& 7 ' +6 '
-+ 'Q' <<+ .' .' / ' & *' <* , ' .+ ' +6 ' -+ H
' .' <<+ ' & ' .' = *.' +,' J * ' + 0 *' +'
+ ' +' / ') < ' +,' & ' .')+6< ' ?& -&' & ' '<* , ' +'
6 , *' .' * ' <+ ' & ' +? ' -& *0 ' ' .' /+ ' & '
,+* .' < , ' / ' +' +' / ')+ < ' +,' & ' .' 1 0 6 ' +' / '
7 .' / ' & 6' + ' +,' & ' +0? ' - ',* . ' .',+ +? * ' -+ H
, . 0' +,' G')+6< ' .',, , ' 6 ' ' -&')+6< ' ? &'
, '<+? *' +' & ' .' +& ' J * .' +,' & ' (' +' +6 ' & '
& ' , * + *' +,, - * ' , ? ' +,' & ' , ' 5 0 6 ' ' +,' & '
,+* .')+6< ' .' +'0* ')+66 , + ' --+*. 0 ' . +'
-+66 .' .' G *-, ' & ' .')+6< ' .' , ' & ' .'
5 0 6 '?& 7 *' & ' 8 -' +*' & ' 1 ',& '* F * '
& 6' +'- ' & 6' + '- * , ' .'. 0 ' .' +'(<' & 6'
' '0++.' +*. *' .' . ,- < ' .'0 * ' +' - 'Q' .+ ' ' .'
?& ,+6 7 *' & 0 ' -+6< ' .' - 6/ ',+*' '< *,+ '
- + & .' ? &' -&' ')+66 , + ' +' .+,' .'< *,+*6 '5 F * '
0' & */ ' & ' , * + *' +,, - * ' .' + . * '+,' & ' .')+6H
< ' .' 5 0 6 ' +'+/ '& 6' & ' .'= *.' +,' @J * ' '
& *') < ' .')+ + ' .' & ' .')+66 ' +,' 1 '
.+ '& */ ' -+66 .' .' * F *' & 6' +'+/, *7 ' .'<*+, - '
-&' +*. * ' .' . * - + ' ',*+6' 6 ' +' ' & ' ,& '
* - 7 ',*+6' & 6 ' +*' ,*+6' & ' 6 0' +,' & ' 1 ' +*' ,*+6'
8+*' 3 * ' C ' <* , ')+66 . *' ')& , ' +,' & '
,,/* '+,' & ' C 0.+6 ' +*' '+ & *')+66 . *' ')& ,, '
,+*' & ' 6 ' +*' '+ & *' < * + *' +,, - *' --+*. 0' +'
& '* ' .' . , <5 ' +,' ? ** ' .' . - * ' & ' & ')+6H
6 , + ' & D' -+ +?' .' . * ' 7 ' & ' C 0 ' 8 '
,& ' / ' < .' +'0* ' ' ?')+66 , + ' ,+*' & ' .')+6H
< ' .' 5 0 6 ' +*' + & *? ' . ,<+, ' & *+,' 0 .' / '

? ** .' .' ' 6 ' +,' & ')+66 ' +,' 1 ' / ' & ' =+*.'
5+, ' & *' <* . ' ' 1. / *0&' & ' %&* &' ' ' +%
'9U' 78\' 1 0& ' ' *

%E1')+66 ' .8+ * .' +' ' '- + -(' +' 6+**+?'

%E1' J+ * &' ' '+,' '9k' 784' 1 0& ' D ' *

%E1')+66 '- .' G * +*. * ' ' G' '- + -(' ' & '
6+* 0

; ;'!?;'K >' %E1')+66 ' +,' 1 ' E 7 0' -+ . * .' & ' * <+*' +,' %E1')+66 ' / 0' 6 ' +' 6 , 7 '= * ' ? * ' * .',*+6' @?C=# ('
#?' K# =' & , ' +,' & *' 6/ *' ?&+' ? * ' <<+ .' +' -+ , . *' & ' > ' ' - ' ' ' . '8 +' & '<*+7 ' +,' ' . '/ * 0' +C=
(E =#N <' = ' 6 , *4*+ ' +,' & ' +')+6< ' +,' & '=+*.' > * ' 5 0 ' & ' & 'R -+ ' +,' ' . '& .' -F .' & '%+? ' +,' ' . ' ## @NC '
K# = '(8 AB 6 ' -+66 . .' / ') < ')& * ' ? + ' .') < ' , * 0&' ' , 7 ' ' -+ + -(' ?& * <+ ' ' 6 , 7 ' = *' ? ' +C=
6 ' 0&' & 80* ' ? ** .' +' 6 ' 2,? .' * - 7 *' 66 . 0 ' . ,< -& .' +' & ' ' (' +,' E 6 + ' ? &' '
3 * ' +,' & ' << ' .'9 .' G , ' +' .* ?' <* - < ' + ' G<* , ' ?& *+,' & ' +*',+ +?
-&' < * - *')+ - +* ' ' & ' ,& ' & (' , ',+*' < 6 ' +,' ' / ' <
& '%&+ .' 6 *(' -+ ' +' -&' +,' & ' . ' +')+6< ' D %' +?' ? ' & 7 ' ' G<* , ' & ' & 'R -+ ' +,' ' . ' O ## ;'#?'#B!;'
+*' ' & *' /, - ' +' & *' = 7 ' +*' 1 0& ' ,+*' & ' , ' & .' -FF .' & '%+? ' +,' ' . ' ', 7 ' ' - + -(' , 0&' +C" ' L
+,' & '* ,< - 7 ')+6< ' ? . *' & *' -+66 .' +' / ' +? .' ' ? ' / ', ' & * ,+*' & ' + *' 3* - ' * < *' +' 1. / *0&' < 8#?=
' & *< ? &+ ' . ' ?& -&' ' 6 '+,' & ')+66 ' ' 0 , .' +'
+ ' /
A+ *' 3* - ' 6+,' & 6 / ', *7 '
$ # -' / *' >2 1'

?<< ?=' ' %E1')+66 ' +,' 1 ' -+ . * 0' & ' ,+*' & '<* , *7 '
#B '0 ; '?!' + ' +,' & ' <*+ &' * 0 + ' .' ,+*' & ' *7 - ' +,' & *'
@! ;8 =' 8 'C 0' : 6' .' T ' * ' .',+*' 0 *. 0' .'
>?C=A ; - * 0' & '< , ' / ? G' & ' & 0& . ' .' ' 6 / * + ,& * '
0' / ? G' =+-& +8? 6+ ' .' =+-& + 0 ? & ' & '< 4+'*
-& '+,' % */ ' +& ' J * ' + 0 *' +,' & ' ('& 8 6 . '
'+,, *' +' & 7 ' ' * . ' G')+6< ' +,' ,,++' -+ , , 0' +,'
,, , '6 ' ' -&')+6< ' +' / ' * , .'+ '+,' & ' +? ' - '
,* .' .',+ +? * '?& 7 *' & ' 8 '+*' & '1 ',& '
F 7' .' & ' & 4? ' <* '6 , *' .' <+ '& '+?

+, ' . . & & 6 / * ? * -* , 0 . 0 & *
6 / * ,+ + / 7 & ?+ . + 6< , -& & 0
? &+ -+** ,<+ . - ? & 7 * + & * ?&+ 6 . * ?
+0 & * , / + <* 7 .? & * ,+* . , * + + .
& & * 6 6 .)+D+ > *-(5 0 6 +, ' * 0++
. & ,++ 5 0 6 +, E , 0 ?&+6 ? & * + / >
? -(. & + ?+ . , .? & & ,, -+ 7 -
+ & * +,++ 5 0 6 ?&+ * * , + . ?&+6 +
& (6+, <*+< * + / , +* + * , , - + .+ / 0 + *
* . + -+6< ? &+ * . , * (+? 0 + * S ,+* &
C 0 *7 - ?& -& 6 +, &)+6 6 +, 1
0 , . + + /

95

A+ * +, & 6 / *7
- / * 52 1

%E1)+66 +, 1 07 +*. * .? ** . + &)+H
- +* +,) , +6 +, >+**+? + ,+* * 0 G , * (0 +,
<+?. * / + 0 0 + & %+? +, ' .) , +6 , *

%E1 = * ? . *?* . * - +)+D+ > ,+ *

95

%E1)+66 +, 1 -+ . * 0 & & =+*. ' .
& 6< <+ & %+? +, ' . + , 0* 6<+* 0
, & , + 8. - ** & %+? ' 6 0& / +, 0* .7 .0 +
& 6 . <* 8 . - L + & 8 *7 - & * -+66 . +
+ &6 . + +*. * + & .* &+, & / , 6 ? . *
+ * -+66 . + 0+ +7 * / & , * ++ . + >*
. + <*+, - , -& +*. * <+ 0 - + &
. * - + & 6 . ,+* & ,, - &)+66 . + 6<+? *
+ , / + <* , /+ ,+* & * * ,<+* . , /+
- + / & .,+* & * * ,<+* & 0& & + - , /+
+ + ,+* * - 07 0 & 6 +6+**+? 6+* /0 . ,
= * 9& / , + &)+66 +* & *<* , -8 ,*+6
' . & .+ 6<+? * + +* & +,, - * + * , +-+6 4
6 . & , 6 + /* (< & , . + (-& -+ * *
. 07 -& +*. * D<+ -+ , . * + & *+, & D / *
&+ 0& G< . 0 . / ? * . . 6 +, &)+6H
6 /

A+ *& 6 / , *7
a / * 52 1

=1%%15 ,*+6 & =+*. > *0 + & <* . / 0* .
? & + & *,*+6 & = *. +,) * ,+ + & + - *
/ * 0 & D\ &+ , +, *. 6 ? 07 ,+ . ,+* &
C 0 *7 - &)+* 6 , + ? . *?* ? 0* . + &
= *. +,) * +

%E1)+66 +, 1 * <+, 0 ,< - , , . -+ "
, . - & , . / * .0 . 0++. -+ . - +, E 0&
) &- * +,) * + & .+ & */ 07 <+? * .)<6
6 , + + & 6 + 7 .* , ? ,+D . * ?& *+, + +
/ * 8 ,+* (< 0 3 * ,+ ? & & 6 & &+ , +,
*. 6 . +6 -+66 , < . <<+ & 6 +
/)+66 . *+, & . 6 + / 7 ./ & 6 ? &<+? *
+& 6 + +6 & * 8 . + -+66 . . G *- , & *
. & * 6 ,+ . * & . 3 B + - * , .
. 0 . + (< & 6 0++. +*. * . . - < . +
- . .+ & 0 -+6< . - 6 / + & 6 -&
+ + .+ . < *,+*6 5 F * 0& */ & . *8
. + . * & . 3 * + + 07 . +/ . - + & 6
& *)+66 . * :&+6 & ,+ * F * + (< -+ ,
3 *,+ & .) , +, *. 6 . + +/, *7 .
<*+, - -& +*. * . + . * - + & , ,*+6 6 +
6 * - 7 ,*+6 & 6 +* ,*+6 & 6 0 +, & 1 +*
,*+6 8+* 3 D C <*)+66 . *)& ,, +, &
,,+*- +, & C 0./6 +* + & *)+66 . *)/ , ,+*

& 6 +* <6 + * +,, - * --+*. 0 + & * .
. , < +, ? ** . & .)+66 +, 1 .+ & */
. - * & & *8 . + . * +, & . 3 *,+ , &
* + < ,*+6 & 6 & , & / * , . . -+*
< 6 , * . . & &)+66 , + & -+ +? .
. * . ?& & C 0 8 , & / < , . + 0*
?)+66 , + . / . & . 3 *,+ +* 708 ?
. ,<+, & *+, 0 . / ? ** . . 6 +, &)+66
+, 1 / & =+*. 5+, & * <* , . 1. / *0& &
,+ * & ' +, @ 78 _1 0& *

%E1 = * ? . *?* ? . * - ,*+6 &)+66 + &
=+*. > *0 $

A = 25 ' B
9 E R1 -+66 - + * = * + &)+66 +, 1 8 ## ;
?&+ & 7 0* .)+66 , + + & = *. +,) * + + #?B 0?; ;A =>
* , %? 6 , +* (< 0 3 * + ? & & 6 &
&+ , +, *. 6 + & & , ? + . * & .+,
+ * * 0 6 ? / * * . + + & & 7 (?
0* .? ** . + & 1 * +, 10 &0 + + - , . 7 .
& 66 + 0 & %+? +, * . + < * +
/ . < & &+*. +, *. 6 & * < * & *+, +
* * . & * , +/ (+ 9*7 0 ,+* & , +, &
.8 - 8 * . - + %& / ? ** . +, &)+66
0 , . + + *=+*. & < /

A+ *=+< 6+8 & 6 / , *7
$ - /, * / * 52 1

%E1 = * ? . *?* ? . ,* - + E 0&) &- * +,
) * +

95

%E1 +& +* . . 6< * & -+ +, + * * +, & 8 ## i ;
)+66 +, 1 . & & 7 0* . +) +66 , - #?B 8 ; ?! ;8 #?C=
+ * , 6 . . * 8 . + 6 * & 6 . . < .
& < / - -& *0 ? . * 2 * -+66 . 3 * + &
&+ , +, *. 6 + * & 6 6 + / - * ,
+ 07 0 - +) * ,*+6 9* .+* < *
+, + ,* -+ , ?& -& 6 / +, 6<+* ,+* & - * +, &
)+ * . . , / <+, / - , 8 * & . +& J *0 ,+D
)+ +, , - * + / , < *,+ * ; : & -& 6 +, &
)+66 0 , . ,+ + / , ,
A+ *& 6 / *7
- / -* / * 52 1

(= * ? . *?* ? . * - + & 1 * +, 10 0*
+ , ? * + = *,*+6 & 6 + &)+66

A = 25 '
9 E R1 6< * . & - + +, + * =+< = * + & 8 ## ! 7
)+66 +, 1 . & & (, & & E * +* . #?B & ; ?! 7
, , / 6 +, & & * / * , . . 6+. . 66 . &A =#?C=
-+ ,+*6 + & - +, & 1 . & & -& ? *6
/ , * && . + +, & < / - *6 & %+? +, *
<+ * - < . +/ ,6 + 6 (& 6 , * &-+6 0 &
*7 - . & &)+66 & */ &+* S + * =+< +* -&
+ , < <<+ + . 7 . & 66 + 0 & *
& * < * + +, ?& -& + / , + & &+ , +, & *. 6
,+* & , +, & 8 * . - + + , 3 ** -(+ & * + * 6
* * ,+* & 8 * . - + +, C . & 5 *. + / +
=*7 0 ,+* & , +, & 8 * . - + +,) 0& 6 & .+
(? 07 ? ** . d + * =+< + - & + . = *. +,
. 6 / ,+ + . G 6 6 & & / , * - 0
-& *6 ? * & &+ , * -& , . -+** ,<+
. - & 6 0& & 7 ? & < *,+ + & <* 8 . - +, &
< / - < - . + , .- , +, & * & 6 *

2 ;:; = '!?;' 8> ' ; '?!' ;: D = '#?' #B K# = ?!'B?;

%E1)+66 '+,'1 '.+'* -+66 .' +')+D+ '> ,+ *' >*0 . *' 3 * ' .')+66 . *' ' /, - ' +,' & ' 3 * ' 8+*' C ' +'. 7 *' +*' - , ' / ' . 7 * .' & ' 6/ *' +,' &* ') ** / ' +' -&' +,' & ') < ' , 6 6 .' +,' & ' *++< ' 7 .' / '+*. *' +,' & '1 '+,' & 'C 0.+6 '7 8' & ' 1 * '+,' 10 0+6 ' & '1 * ' +,' . ' & '=+*.' I ? ' /+ ' & '=+*.' A *' & '=+*.' 5+,' & '=+*.' > & 7 ' & ' =+*.' 5+ +' & ' *' +,' J+*/ ' .' & '= *.' +,' > *'+*' +' -& ' < * + ' ' & ' .') < ', D' <<+ ' +'* - 7 '8 & *' . ' * ,< - 7 '<*+<+* + ' <+ '* - <' +'/ '0 7 '/ ' & 6',+*' 6 (' 0' & ' .') ** / ', * &-+6 0',+*' & ' *7 - '+,' & '< & -

+,' = &0+?' +' 6 ' <+ ' . ' G' & ' ? '+,' & ' , ' .' & ')+66 , + *',' << ' ' & ' & *',' 1. H / *0&' +'6 ' <+ '% . ' G' & ' ? '+ ' ' ' & ' ? ' / ' ? * / ' + ' & *'< * ' .' ' '& */ '. - * .' & ' & , ')+66 , + *'?&+', '6 ' & ' .'* ,< - 7 '. ', ' / ' T +* 6' .' & ' & '6 '<*+- . ' .' -' '?& ' -+66 .' +' & 6' / ' & '1 ' .' <<+ ' & ' & ** ,, ') *(' ' & ' . ' & * ' +' 6 ' & B,+* .'. '+,' 6 H 0' +' & ' 7 * ')+66 , + *' & ' & '6 '(<' & ' 6 ' .' & ')+66 '+,' 1 '? . *, . 0' & ' & ')+66 ,H + *',' << ' & ' & *',' E . 0 + '?&+' 6 ' *H . ' . .'<*+- . ' / ' & '? * ' + 'T +* 6' & ')+66 ' .2' <<*+7 ' & *+,' .' . - * ' & '?& '? ' .+ ' / ' & 6' ?&+' 6 ', '/ ' , '7 . ' ' ,' & '% 'T +* 6' <<+ .' / ' & ' -'+,' & '1 '& .' 6 ' .'-+ 7 .

; ;'!?;' 8 ; =A' K #?''#?' >?C=A' /?8E ;#

%E1)+66 '+,'1 '.+'* -+66 .' +')+ + '> ,+ *' >*0 . *' 3 * ' +' - ,' . 7 *' +' & ' + 0' = *.' +,' + ? *',, , '< *'+,' <, + ',+*' & ' ,'+,' & ' *++<'? . *' & ' -+66 .' .' & * ') ** / ' & '07 0'* - <' +'6 (' & B 6', * &-+6 0',+*' & ' ,'+,' & '< / -

%, 1)+66 '+,'1 '.+' 07 '+*. *' .'? ** .' +' *' 87; @ K#?='
*-(** '3 * D'* - 7 *'+,' & ')*+ '* 7 ?' +'< ' (' /!8#; @"
+')+ + '> ,+ *'>*0 . *' 3 * ' +*' & ' +*. *' & ' +?6 ' \
+,' 0&' <+ .'^ * 0' 6+ ',+*' . ,' 0' & ' G< - ',+*
+ . 0' & ' * * ' .'- ** 0' & ' 6',*+6' & ' & <<

d ; ;'!?;' @ # =A' J < ' 8@?8<-

%E1)+66 '+,'1 '0* '? ** .' +' '& * .'+*' < * ' , 7 '? &' ' * 6< *' +' -& *0' 6 ' -+ 6 ' + ' +' & ' = *.' +,' > / .. ' +' -+6< *' / ,+*' & ')+66 ' +*' & ' 6 0' +,' & '1 ' & ' . '+,' +' ,? * ,+*' & ' * ,+ / '* , 0' ' *6 ' .'8+ 0' ? &' & 'R H -+ '+,' ' . ' '. - * .' * / ' .' 8 +*' '+<<+ + ' +' & '<* '3+7 * 6 ' .' & '? . *' & '< '+,' * ,+

%E1)+66 '+,'K & '1 '.+' & */ '+*. *' & ' & ' . ' 2*. *R*
.'J * *' S .' *. ' B & '= . ' \) '&+ , '/ ' =+*.R+ '
/*+ 0&' .'< ' '- +. '+,' & '=+*.' 5+,' & *'<* .

2 ;:; = '!?;' <C # ; =A' ?< ' ?<L K = '?!'#B ' 0?; '(#; #B9' = ; 1 9' < =#

I 1 I %' & ' << - + '07 ' ' .'<* '+' & ')+6H 6 '+,'1 '/ ' +& ' =+*.' * & 7 ' & ? 0' & ' 5+/ *' = 6 , . '+,'1 *0 '=7 ')+ + '+' & ' .'=+*.' * & 7 *' 5 0 6 '/,',++ '& R 0' 7 .' +, ')+6< ' & *' +'& ' * <+* .' +* &'?& -&')+6< ' * ' * . ' +'/ '6 * .' .' -' & '6 *' 3 * L' ' +' <+ ' & '< - ',+*' <* ' .'%& * ,+*' & 6/ '-* 7 & 0' & 'K .')+66 ' +' +*. *' + ' N' & *'8+87 ' 6/ *' +*' + '+,' & ' +,, - * '+,' & ' *6 '& *' +' 6 *' & ' .')+6< ' 66 . ' & ' & '6 0&' & *' ' < ',+*' & 'C 0' *7 - ' +'0* ' ? ** .' (? ' +')+ + '> ,+ *' -& ',')+66 . *',' & ' , /*- ' & *' ,+*' <* ' +' . 7 *' &* ' & .* &' ,8 +-(' +,' & , ' *, ' '-+6 '+ <,'1 0 . + & ' .' = 7 , ' ')+ + ' +'/ ' <,<+* .' +* &' ,+*' & ' ,'+,' & '5 0 H 6 ' & '& 7 0' 0+ ',+*6 * '/ ' 6 -& +-(' ' & ' .' ' << - + '/ *' @: & -&' / 0' -+ . * .' / ' & ' .')<E ' 6 '+,'1 B & '& 7 ' * ,-+< 6 . .' .' & */ '* -+6H 6 .' +')+ + > ,+ *' >*0 . *' 3 * ' +' <<+ ' ' +,, - *' +' ' & ' /+7 6 + .')+6< ' '+*' 6+* ' 6 * .' + & ' ,, -' /+7 '* <* , . * , *7 0' & '-+ , . * ' + '+,' & ' . * ' ' & ',* +-(' & '1 * '+,' =+ ' & ' .' *' * -(B' E+6 '07 ' ' & *' * <+*' B' & ' . 7 + '+,' & ,,/ *' & .* & ,* *+-(' ' ',*+6'1 0 .

%E1)+66 '+,'1 '.+'* -+66 .' +')+ + '> ,+ *' >*0 . *' 3 * ' +'+*. *' & '=+*.' I ?/+ ' +' 6 *-&' ? ' /+ , % <' & ' *++<' +' & ' & * '+,' 5+G/ *0&' .' (*(' .' +'F *

<+ ' &' . , - ' 7 ' & ' .'+ ' , - '&+*, ' ? &' +*. ' &')+66 + *'+,' << ' ' &, ' & * ' +'- , ' ,, - ' . 7 *' &' .' &* '&+*, ' +' &' =+*.' I ?/+ '+*' +' '& 7 0' &'? ** .' +' * - 7' & 6'?& ' & ' & ' * F * ' &' 6

X 6; ;[!?;'K >' #?' =A#?= ?<K' =>4'

%E 1')+66 ' +,'1 ' +*. ' 6 ' 2,? .' 3 * ' * - 7 *' +'.* ?' '<* - <' <+ ' -&'< * - *')+ - +*' '& ' & ' & (', ',+*'< 6 ' +') < '> ' +,'E *. 0 + ' +,' ' &+ .' 6 *(', -+ ' ' &'< 8'+,' &')+6< '? . *' & '-+66 .

%E 1')+66 ' +,'1 ' .+ ' 0* ' +*. *' .'? ** ,.' +' 2*. *' ' 7+* +',' &' = '*.' 6 ' 2,? .' 3 * ' 5 - 7 *' +,' &' << ' .' .' +,' J* ' G4 , ' +'.* ?' '<* - <'+ ' -&')+ - +*' '&', ' & (', ,+*' < 6 ' +' + 6' J * ' + 0 *' +,' & ' (' +*' & +*. *' +,' & ' +?6' +,' 7 ' <+ .' ,,+ *' & 0' * 0 6+ ' ' ' 6+ &' < ',+*'& ' = 7 ' +' *8 ' . ' '* 66 *'+*'< < *' +66 - 0',*+6' &' & * &'. '+, '

2 ;:< %#?' ('.;' J?B= 8#9' 8 = ' = =# K7 J?B=49' 2 88 @'

%E 1')+66 ' +,'1 ' .+ ' +?' *' +& ' .'+ ' +,' & *' 6/ *' +'?* ' +')& * ' .' ' & '> ,' ,4' 44 * F * ' & 6' +'0 7 ' <' & '< * + ' +,') < ' +& ' : - <* & ' ' & ' > ' .' .' & ' &+* S' & ' .' *' +& P ' - - ')& * ' .' / ' ? 0' +'0 7 ' <' & ' .') <H ' : - Z' +' 6< + ' -&' '< * ' +,' &+*, ' ' & ')+66 ' , ' & (' ' +' * - 7' & ' .') < ' : - ') ' + ' .' +' /* 0' & 6' '<* + *' +' & '%+ /++ &'+,'1. H / *0&' +'* 6 '. * ' 7 D', *. *' +*. *

%E 1')+66 ' +,'1 ' -+ * 0' & ' & ' ' (' +,' 3+*' .+ ' .' & ' +,, - * ' .' + . *'(' ? . *' & 6' +,' & ' <+< , ' * 0 + ' / 0' -& *0 .' / '& * . ' .'< *, 7 ' , *' + .' +,' * 6< ' +'* 6+7 ' / ' +,' & ') , '+,'1. / *0&' .' +' 7 ' & '-& *0 ' & *+,' +' & ' G' -+66 . 0' +,, - *' / 0' '<*+ ' ' ? . *' & ' < ' +,' * ,+ * ' -+ ,+*6 ' +' ' ? ** .' 0* .' / ' & ' 1 ' +,' & ' C 0.+6 ' +,' & ',, , &'+,' *-&' ' & '& 7 ' 6+,' -+ 6< + , '. ,+/ .' & ' .' -& *0 ' %& * ,+*' & ')+66 ' +,'1 ' .+ ' . - * ' & ' .' ' (' +,' 3+*.+ ' .' + & *' < * +* ' ,+* .' * / ' .' , 0 7 ' .'0* '+*. *' .'? ** .' +'& * . '+*' < *, 7 ' +' < , ' +' & ' 6 *(')*+- ' +,'1. / *0&' .'+ & *' < - ' # ., D' .' & * ' , *' + .'+,' * 6< ' +'. - ' & ' .' ' (' +,' 3+*.+ ' .' + & *' < * . ' ,+* .' * / ' .'< ' & 6' +' & '&+6 ' .' +*. ' & *' 0++. ' +' / ' ,-& ' .'! /*+ 0/ ' +'& ' ' ,' .' ,' & ' & '<*+& / ' .'. H -& *0 ' '< *,+ '?& ,+ 7 *' +'-+ 7 *, '+*'-+** ,<+ .' '? ' ? &'& ' .') , '+,'1. / *0&' ? *' & '< '+,' * ,+

-' ', 7+*' E+6 '

%E 1')+66 ' +,'1 ' & 7 0' -+ . * .' ' << - + 07 ' ' .'<* .' +' & 6' / ' *-& / .' E+6 '?&+' ' -+ * -' ? &' & '%+? '+,'1. /6 0&',+*' - , 0' & ' * ' # & *+,'* <* 0' & ' <+ ' & ' 0&'. ' +,' ' , ' +6 ' + . *' ? . *' & ' -+66 .' +,' & ' =+*.' > *' . .'<* , ' '+,' & '< + *' *7 ' '- *' .' +' +,' & '&+*, ' .' ,+*- .' & 6',*+6' & '%+? ' *7 - ' +' * *,<+*' +6 ' *6 ' +' 3 0+?' .' & ' '. ' & ' 6 ' ' (? '& '+ & *' #&+*, ' * '. ' '<* , ' +*' ' ,' &* .' / ' & ' + . *' +' / ' (',*+6' & 6' .' 6 . ' , ' +,' ,+*' & *' *7 - '?& */ ' & '< + *' . , / .',*+6' - , 0' & ' * ' ' & ' + 0&' +' / ' 7 ,' & *' =+' <*+7 .'* 6 .' .'%& * ,+*' & 6 / ' << - 0' +' & ' ,, - ' , *6 + .' & ' .')+ , ' 6 ' +,' 1 ' .+ ' */m'<*+8 / ' .' . ,-& *0 ' '+,, - *' + . *' .' + & *' ? &+ ' & '? ** .' +,' & ' 0 * '+,' 1. / *0&' +'<* , ' & '< + *' *7 ' &+*, ' .'- * 6 ' < + .' ' & ' *7 - '+,' & '%+? '+*' ' ? ' +'6+D ,' & 6 !

; ;'!?;' D?##8 '#;??K'

%E, ')+66 ' +,'1 ' -+ . * 0' & ' & ' =+*.' I ?' /+ '? ' / * ' &+*, ' ,+*' 6 (0' <' +,' & ' *++<' & ' 0* ' : ** .' +'& 6' +'- ',+*' & * '&+*, ' + '+,' & ' & * ' +,' & * .' .'1 ,' 5+, ',+*' -+6< 0' +,' & ' *++<' .

)+66 ' +,'1 ' -+ . * 0' & ' & ' *++<' +,' &+*, ' ? '8 ' $? . *' & ' =+*.' 5+,' & ' -+66 .' / 0' 6 , * .' <+ ' & ' %;??K ' 7 &' +,' ' , ' . .' -+ , ,' +,' * ' G' &+*, 6 / . ' +,, - *' & * ,+*' & '0* ' ? ** .' +' 6 ' 2,? .' 3 * '* - 7 *' +,' & ' << ' .' .' G- , ' +'.* ?'<* ' # - < ' <+ ' -&')+ - +*' '& ', ' & (', ',+*'< '+,'+ ' & .* &' .',, , ',+ *'<+ . ',,+ * '9& 0' * 0' 6+ ' +' & '=+*.' 5+, '+*'& '+*. *' ' '6+ & '< '+,' & ' .' *++<' ' -+ , 0'+,' & ' 6 / *',+* .' .'+,, - *' & *+,' .' & ',+*' & 4 - ** '6+ &',*+6' .' , *' & '. '+,' & '6 , *' ,+* .

2*. *,+*'< ' I ?/+ '

%E 1')+66 ' +,'1 ' -+ . * 0' & ' & ' *+<< +,' &+*, ' ? . *' & ' -+66 .' +,' 8 ' =+*.' I ?/+ ' / 0' 6 * .' <+ ' ' & * &' +,' ' , ' . .' -+ , ,' +,' * ' G' 4 &+*, 6 ' / .' +,, - *' & '0* ' : ** .' +' 6 ' 2,? .' 3 * ' 5 - 7 *' +,' & ' << ' .' .' G- , ' +'.* ?'<* H - < ' <+ ' -&')+ - +*' ' & ' & ' & (', ',+*'< 6 '+,' '& .* &' .',, , ' ,+ *' <+ . ',+ * <' & 0' * 0' 6+ ' +' & '=+*.' I ?/+ '+*'& '+*. *' ' '6+ & '< '+,' & ' .' *++<' -+ , 0'+,' & ' .' 6/ *' .'+,, - *' & *+,' .' & ' ,+*' & '- ** '6+ &',*+6' .' , *' & '. '+,' & ' .'6 , *

%E 1')+66 ' +,'1 ' & 7 0' -+ . * .' ' << - + ' 07 ' ' .'<* .' +' & 6' / ' & '< *+-& * ' +,' ' 6 ' '3 +*0' * <* 0' & '?& *' ' G . *' > (' ' 6 *' & *' <, -& 44 ' . - ,' .' & ' ' 3 +*0' % * / ' 6 , *' & &'<* -& .' +#8< < ' ' & '6 0'&+ , '+,' & '< *+-&',+*' ' -+ . * / ' 6 '/ ' < ,' .' G *- , .' & ' + & *' 6 , * ', 6- + ' .' & ' & ' C *('+,' & ' .'< *+-&' ' +?'7 - ' .' %& * ,+*' & 6 / ' -* 7 0' ' ? ** .' +' & ' ,, -' , *6 + .' & ' .')+6H 6 ' +,'1 ' & 7 ' +? .' .' & */ ' +? ' & ' .' '3 +*0' % * / ' 6 , *' ' & '6 0'&+ , '+,' & ' .' < *+-&' +'<* -&' ' & ' .'C&('+,' ' 6 ' .' +' G *- , ' & '+ & *' < * '+,' & ' 6 , * ', - + ' & * '? &+ '<* H 8 . -'+,' & ' *+ '* 0&' ' --+*. '+,' & '= ?

I 1 I %' ' << - + ' 07 ' ' .'<* .' +' & ')+6 ' : 7 .' ' 6 ' +,'1 ' / ' & '= . '> ' & ? 0' & ' & ' .' +,' = . 'E / .'/ 0' / ' & *'=+' +*. *' (< .'-+,'<* + *' 4 ' & '%+ /++ &'+,'1. / *0&' & , ' G' . ' .' & '< + *' $ / 0' & */ ' . / ** .',*+6' & ' , - + '+,' 0'& 6' & *

=+ - + / / / ?& G -* & < + ,< - 0 , <<* & , 7 &+?<* . - L & .+, <* + .? +, *6 / +& & & .%& * ,+* & 6 / -* 7 0 & .)+66 + / +, 7+* / + +?& .= . -- , +& * E / .?& -& * +* ,+ / .6+. , . , * =+ - .0 .& *=+ - ? + . & .<< - + / * :& -& / 0 -+ . * ./ & .)+66 +,1 & &7+*. . &*/ +*. & */ +*. & 3++.6 +, & %+D/++. +(< & && ,,+, > - * <* + .& .+& */ +?& .& && ,,& / * +, ,* <* +

=1,%15 ,*+6 8+* 3 * D 4C +)+ + > ,+ * / 0 * . & ? ** .? . *?* ? 07 / &)+ c 6

%E1)+66 +,1 .+07 ? ** .+ & =+*.5+, <* . +, &)+66 , * & 10 &506 & -+6 & & *? &.7 - +,)+ + > ,+ *>*0 . *3 * +07 -& +*. * ,+* & 6 *-& 0 +, & , * 0 6 +* +, & 6 .F * * 0 & 6 -& < - & / &+ 0& ,

d2 ;; = #?
#B 0?; ? ?
!?< ;@B =A
Q NC ;# ; =A
?!#B &=A8 B
A < =# -

%E1)+66 +,1 .+07 ? ** .+ & */ . -& *0 & E * +* .% -(6 +* 6+* +, & , <, 0 +7 * & 57 * +, % / ? G &) , +,>* -& + & & +* & .+* -* 0 + & + & -+66+ - .& J ** +,>* -& + * ,<+* <, 0 * +7 * & .J ** .0* ? ** .+ & 0 * +,> . +- * & <, .0 /+ / + 0 0 + & .E * +* .% -(6 .+ & P , ./ Z & 6 + & / *0& +,> . , *. * +*. * .+ &)+66 . - * ?& 7 * . 6 0 +, +* <* 8 . - & $ .E * +* +* % -(6 & & &*+ 0& & +< 0 .. -& *0 0 +, & .< , 0 6 * ,+ . .6 . <+ & 6 .& . ? , .N < .& * ,+* + +, & <+ / - %& , * *

2 ;; = !?;g
@C; =A B?#@ ?= #B ! ;; ?!
;C@B#

%E1)+66 +,1 .+0* ? ** .+ * : 6 E+<) < +, & *++<+, &+*, +*. * .+ / * .+ +, & * +, J , . C *+, +- $,+* &+,) * / ,+* & , +, & %*++<?& -&! / + 0 .+ & C 0 .? * ,+* 6 * 6 . , +, / & &+*, 6 +, & , & * .+*. & 7 * & ,) * / +& & .+ * : 6 E+< +* & +*. * <+ & * - < R& & & - ,+* & 6

;, !?;
8> ; =A
; D = #?
(; 2 j ?K

%E1)+66 .8+ * .+ - -(+6+**+?

%E1 G &' +, @78@10& & *

%E1)+66 +,1 7 0- ./ ,+* . 6 +& & * 6 , * * +* +/ 0 & <*+- 6 + 6 . / & 1 +, & & * & -(+? .0 . & & & . +* * . & . <*+ - 6 + +* <* .+* C 0 : 6 . T * <<+ . & * & ,, . & & & -+ * 7 . & . <*+- 6 + . - ** . & - * , - + K & *+, . %& * ,+* . <* 7 & 6 +, & / , - . - * & C *(7 - # $

+ K; #?=?!
#J?B=
#B ; < = L
;?!(;

%E1 = *? . *?* <? . * -$,*+6 &)+66 +, 1 +& 1 * +, <.

A =25 '

%E1 8)+66 +,1 $/ 0 ,+*6 . & +6 < * F .+ -+6 (0+7 * & & *. * ,*+6 & 10 & . ^& 7 0 7 . 0 0 & 3+7 * 6 . 0 + & 7 8 +*. *;,*+6 8+* 3 * C +-+66 . & * &+*, +, & 10 & , /*- , +* & 8 *7 - ? -& & * - +, . &)+66 .+07 <+ * . ? ** . + + * =+ <+&0++. ,+* + <, < * + 0 & *+, & C 0.+6 +* & * -+6 +7 * /+*. * ,*+6 10 . ?&+ $ * . ,, - . + & 3+7 * 6 + S <+ . - * & 6 . ?& * + & 7 0++. 0 - & . ,, - . < * + +, & C 0.+6 * 0+ + 10 . <+ 7 . 0 & + ? -F & 0 * +*+, - * +, . ,,<*- 10 . * & /+*. * & & (6 * 6 - * & , < * + %& / ? ** . . 6 +, &)+66 +, 1 0 , . + / 4 =+*. A+ *=+< 6+ & 6 / *7 -/ -* / * 52 1

%E1)+66 +,1 K .+0* ? ** .+)+ + > ,+ * >*0 . * 3 * + +*. * & , 7)+6< +, & 50 6 ? . * & -+66 .+, & 1 * +, ?& -& * F * * . +* * 0 + 6 *-& + & & * +, 1+G" / *0& . (*(. + F * * . / *0& . (*(+* -& + & * < - & , & * & / &+ 0& -+ 7

d ; !?; #B
& ;8?!
A < =# #?
= ;@B-

%E1)+66 +,& 1 g 4 & 7 04 h & . ,+*6 + & & , +, & & * +, J+*, * C - *. . *,& < * +, =+*. / *. & * / ,+* / * -(0+, & * <*/<+* + +, Y *++<\

#B ?C#; " =AZ

//*',',+#6 (0' <',6 '=+*.'5+ +8'%*++<' * ',',+#* & #
8 ' *7-'&7' +/+' .'&'-',&'1 '6 .'
<+ &'. ',+ +? 0' ' &'?' / ',? * / ',+## & #
< * ') ',&+,' ' &' &'*,+'; * 0'&'? 8+ ' .',+'
' &+,' ' &' &'*,+'; 5+G/ *0&' &'
.',&,' ' &' &'*,+'; ('*(' &
6 ' &' .' ' &' &'*/' -0*.',&',&','+66 ', + *',?&+', '
<*+- .',' .',-',?& ' ',T +*' 6' .',&',&'6
<+66 .',&'*/ ' ,T +*' 6' .',&'/ ' ,1 '
.',<<+ ' &',&**,')' *(',&', .',&'*' ,+' &'
&',+*' .',+6 ' 0' +',&'7 * ',)+66 ', + *',&'
&'6 ' ' &'*+,' 5+G/ *0&' &'
<+66 .',&'/+ .',+* '+',&+*,' ' &'.' ,+',' '
+' 6 ' ' &'*' &'?' .',&'1 ' .',-'+',&'1 ' .',7 * 0'
, +'07'+/ . -',+' ' .',?' * / ',+' &'*&0&& '<*
.'6+ 0' ' &',?' / ',?' * / ',+' &'*&0&& '<*

d2 ;:' = #?' %E1')+66 ' +',1 ' / 0' ,+*6 .',+' &' <+' &'
E'&&'#';?'@<g' %*++<'+',' ' 0++ ' 6' &'C 0P 6 ' ? .'*' &'-+6 .',7'
' &' &'*,+'; ,?&'*+',)' < +&'E+6 '+',' I ? '
+; A??=' =+*.') *.*+',?&'*+',)' < ' &' 0* ' ? ** .',+
) < ' ' &'*.' ' +'/' 6 *.' &' 0* ' ? ** .',+
6 ' &'*,' *' +'< ' &'%*++<' &' &'
' &'?' / ',? * / ',+' &'*&0&& '<*
7 ' -' &'*+, $ &'D/ ';T +* 6' .' &' &'<*+- .',' .',-',?&
' &'*/ ' &'6'/ ' &'1 ' / ' &'*,+' .',+'
. - *.' &' &',)+66 ' +*',?&+', ' 6 ' &' .'.
',+66 .'+' &'6'/ ' &'1 ' / ' &'*,+' .',+'
T +* 6'<*' .' ' <<+ ' +&' :' +',+' + ' *' <+'
-<' &'+', +' 6 ' &',+*' .' +',6 0' +' &'
7*')+66 ' +*',+' &' .' &' &' &' &' <' -H
' &'?' (<' &' 6

<; ';i?;' %E1')+66 ' +',1 ' / 0' ,+*6 .' &' <+' &'
?<< '#A'=?!'#B' ,'+* &' +',' &' .' +',6 ' T +* 6' +',&'
27* ' &')+66 ' +*',+'#' &' << ' ' &' &'*+' ' 0'= *('
5+G/ *0&' .' ('*(' ?&*/' &' .' +' <*+- .' ';' &'4
1 ' .'+' +*.' &' &' &'<D<' &' .'K
,, ' ' ,*' +-(

R 2 1' ' < + '07 ' =' D>') < ' 6 ' 0&' &'.' d ;' ;' = =#
)+66 '. -&*0 .'&')+6< ' &'/ . / .' ;' .' ' =' + .' ;' .0&&
&'< + *' &' &'*+' ' &' 6+ '-+ .' ' &' <*- < '
6 + .' ' &'<+ ' &' 0' +',&'*/ .' ' &' <*+- .' ' &'
2,? .'3 * '5 - 7*' &' << ' .'9 .' G- ' ' +'
.* ?'<* - < ' -&')+ -+*'+*%' -(',6 '+',&' G- ' ' .'
' <<' ' &', ' &' (', ',,+*' 6 '+',&' &+ .'6*(' '
+') < ' 6/ *' +'/ +?' .' +' &'?' &' &')+6H
' +?' &' 6 *-&'?' &' &')+6H
< ',*+6' 3 0+?' +' ' 0&' +' 6 *-&'?' &' &')+6H
)+ + D +' &'=+*.' * &' 7*' &' '-+66 .'&'6
7 &'+',' ' ' &' &' &' +'&' &' &'6 ' ' &'6 '

I 1 I %' &' << - + '0 7 ' ' .'<* .' +' &')+*
6 ',+',1 ' / : 6') .*?++.' ?* * .' &' &'%+ /++ /'
0' &' ?&' *' &'< ' * ' - *-' * ' ?' &' &'%+ /++ /'
+',1. / *0&' <+' 6 *' ','< - + ',+',&' 7 0' -- ' + ' +' &'
' G -* / ' 6 *.' *' -+66 .' <+' &' <* + ',+',*' 3 +*0'
=+-(& *' ' =+*.' * .' +',&' ' + ' /' +&')& ' '
+',' * ?&+'/+&' ' &' 6 '+',&' +* * ' /' +*' &' -'
' 7 ' &' * ' 66 . ' / ,+*' &' .' &'.' ,' '
,* -F ' .' G+ *' &'< + *' +',' &' 7 0' ' -'
-',* + ' &' * +' ,+*' <+ (+? .0' &' *+',' *' +',' ?'
6 0' &' 6' +'?+*&' <+' ' --+ ' +' 6< *' &'
6 .' +' &'6' +',?&-&' ',3+.' / ' &' .0++.' <*+7 . - &'.'
+' +*. * .' ' &' &'<' + *' &' 0+ ' / ' &' <*+,' <-'
+',+&+** .' ' &' 0 ' &'*/ ' ?+*.'+*' -+6H
6 ' &'6/ *' &'<' + *' &' 6/ *' +',' .' &' .'
' ' ' <-(' .' &' (6/ *' +',*'+6 -&+-(' +',
6 ' &' ' ' +' ' '

d ; =#
?;
;C?#-

%E1)+66 +,& 1 .+ & */ +*. * .* F *
8+* 3 +*0 6+ 66 . <+ 0& & *+,+ * < * +
1. / *0& + .&)+66 +* 0+,& 1 +
+,& C 0.+6

2 ;; = !?;
<C # ; =A#B
B?; ;
!;?<#B B>; ;
?!' ;E @" = ;
=A#?C=

%E1)+66 +,1 .+ 07 ? ** . + 6 E+6
+,J , ? &' & -+66 . 0 +,, - * +,. %*++< + 6 , *
& &+*, 6 +*. * . + / * , . + +,& & , +,> *? -(
<+ % . G_ " - . <<+ & = *.+,= 0
+ + +,&)+66 , + * ,+* & . & ** + 07
+ - & *+,+ & . * & . & * . 0* ? *H
* . + .* ?' J -& * +, + ? &' & -+66 . 0
+,, - * +_ & %*++< + 6 , * & &+*, +*. * . + / * .
$+ +,& & %+,E . 0+ <+ : . . G

@# =! ?;
?!' J?B=
@8 =

4 I1I%' & << - + 07 . <* . + &)+6H
6 +,1 / + & - ?* * + & 0
& ? 0 & & < + * / 0 ,+* +6 . / +*.+,
. *=+ ? . * * , * - +. +,& 3+6 . +,& '
, /*- & * ,+* & 6 . & 6/ -+ - 7 0 & / '
,+*6 + ,07 + & .)+66 0 & < + *
+,-+** ,<+ . - ? &' . , */ * +,& <* 3+7 * 6
+* + & *? / -& 6 0& ? &' * + 6+7 & * =+ +
< - + < +,& < + * <+ G 6 + 6 / ,+ . + ? . 0*+ . . & * / 0 + & 0 6+* . 0* / 4
+ & < + * <* - , . +< + , ? . & -+ .
+ & & .+ 0 +* 6 . 0 & ?& -& - '
? . + & . F +,& 3+7 * 6 6 . * ?& -& &
7 . %& * ,+* & 6/ -* 7 0 & .)+66 + -+ a
. * & <* 6 , . + +*. * & < + * / * + & *
=+ & & (, & . << - + / * '; : & -& / 0
-+ . * . / & .)+66 +,1 & & 7 +*. .
.& */ +*. & . + & - +, / '
/ * <+ & , . 0 - + ,+* & .* &' <+ 8 .
* 0 6+ + 7 < - / . -+6< * / ,+* &)+6H
6 +* & 1 +* -& M * +< P& . / 6< + .
& 3+7 * 6 +,& C 0.+6 ?& 7 * & , . / - . .
,+* & ,, -

J2==2 : 15 & / . +,- + * 07 / & .
+&

& +& -,, * < ?* * + & 0 / . .+/ .0 6
.6 - * ,+* +& - R* * + & 0
& & , . 7 < - / . * & < +,& & .* &
<+ . * 0 6+ . -+6< * / ,+* &)+66 +* &
1 +* -& < *,+ & . / & < + . & 3+7 * 6
+,& C 0.+6 ?& 7 * & , . / - . .,+* & ,, - .
& +& - / (. .+/ .0 6 +,* 0 * 7
. (& (< & . +& -,, * +,& . - + '
* ,+* 6 . + + .+ 4+* - & 0 ?& -& - ? '
+-- , < 6 . - + * + - **' & . < +* '
+ / 6+. , + + G< & * -+ 0 + & '
* 0 * + & *+,+ & / ++(+,)+ - L +* +& * -+6
< & G - + < , & *+ ,+*6 ,, * . + '

+ * <*+* Q- 9 ? ?& *+,P?* / . -
7 + + & . +& - ?* * + & 0 Z
? & 7 /,-* 7 . & * <* , , 1. / *0& .) +
0 & 7 &. +, 9 U 78 \ 1 0& * . '
& / -* < + +,6 & . +& -) +
0 / ,+* & * ? ,,' + . - +,>*+ + . & .
- , 1. / *0& & ? . +,& & . 6+ &+,
. * , +* . + & . ' + . . - '
- / -* / * @,, * - ' + 'e '
? 0 - 7

) ( )+66 +,1 -+ . * 0 & 4 6 -* 6
0 +* 6 *) ** / 0 ? - . + -+6< * / ,+* & 6
+ ,? * ,+* & + +/ 0 & <*+- 6 + +,& '
+,& & * &+,< * , . . + -+6< * . & '
<*+7 / & . <+, + +,? ,, . . - . & & .
6 -* 60 +* & + * . & . <*+- 6 + .
& <+ ,* . / ,+* & =+*. . ?& *+ & <*+- 6 +
? +& 7 / * . & .8 4 6 . . (? & ('
+,& C *(' .++* . & & & + <* -& . & C *(' - '
& 6 %&)+66 ,, . & & . K 6 -* 60 +*
& - ** . & - * , - + +,& & ,+* . <*+-9 6 \ a \ . '
& * ,+* . <* 7 & 6 +,& / , - . . - * & C *(R - 4

J* - 5 +,) + & / 0 - . / ,+* &)+66
. G 6 . ? . 6 , . <+ 07 0 +,& / . ,+ +? 0

?!' J = Y
(@; <A ?;
< = # ;' #
C ; 9

g J* - 5 +,) + , & / & * <* , 07 6 < *+ +, = /8*
&+ + * & g & + . , */ & <* 3+7 * 6 . g +,) + '
<* - < . ? & 6 : 6 5 +,E 0* - '
+ * +7 * . , . / +* ,+* . ? & 6 / . .8
+/ .0 -+ 8 - . 7 * + * * . G * & g
, D 7 , /6, 7 ? . * & <* 3+7 * 6 . '
<< * / ,+* & 6 0 +,& 1 +* & *)+66 +*
& & & / 6< + . & 3+7-, 6 ,+* & 6c
?& 7 * & , . J* - 5 9& / , 6+ . . ,+* & ,, - '
. & ? . * & < +,& & .* & <+ . * 0
6+ . g & . J* - 5 / . . +/ .0 6 .
6 ,+* . + ? ** . ,* * 7 . (& (< 6 - H
+ * /+7 6 . +,& - + * /+7 6 + . . +,& '
-+ , ((& . .0 * ,+ G<)' & & - ? L
& << + + +* 9 - ** & * &*+? + +* -+ 0 +
& * 0 * + & *+,& & / ++(+,1G-& F * /++(+,
)+ - Q , + +* + & * -+6< & * +,& <* 0
$+, G . . 2 & * G 5 6 / . * - 4 & 8* <+ ,+* 6
, * . -+
+ * <*+* Q- 9 ? ?& *+,P?* / .
: 6 : + ?* * c 1. / *0&Z : & 7 , /,-* 7 .
& * <* ,* 1. / *0& & 7 & . +, 9 \ 78 \
1 0& * / ,+* & * ? ,, +&) *(# ?* *
1. / *0& .& . : 6 : + - / -* / *
J* - 5 : , 2, E 0* - + * *) *(? '
: : + ? o

%E1)+66 +,& 1 & 7 0 - . +& % +*
6 , * ' *+ + <<* / ,+* &) 6 + +/ 0 & <*+H
- 6 + 6 . / & J +,& & * & +,& <* '
, . / 0, . - . + & & ? < *,+ D '
<<* & . . . - . + & & . +, '
<< * / ,+* &)+66 ? & ,+ * 0& & + * , *
- + & & .+ ,, .& 6 -+ 6 - + . &+ . & 6 -+ '
, , <+ & & . -+6< & & & & & -/ * 7 8 . & . '
<*+- 6 + . - ** . & - * , - + & *+, . & * ,+*
. <* 7 & 6 +,& / , - . . - * & C *(7 -

+ K; # ?=i
?!' J?B=
% 8> ?;' < = L
# ;' # +;?=

I1I%' & << - + 07 . <* . + &)+6H
6 +,1 / &)+ - +* = & * <* 0 & '
?& * & * =+ / - +,& . & ? , G & . +,
<* , 07 ? ** . + &)+ - +* J (& +* F * '
. - & ?&+D 6 *-& & & & *& .0++. * . '
+* 0+ & / , +,* , +,& ,/ * < * +,& - +6 '
. * . + <<* & . -& . + & + * .8
< , * / 0 * F * . -+ ,+ 6 + ?& -& ? ** . & . '
)+ - +* - . - & . 6 *-& -+ . '
< * - * ,& *? & <*+. - . + , , & -+& +,& .'
. ? ** . G - + ? . * & & . +,% &+6 8

@# =9! ?;7 9
?!' #B ?88 @#?;
8 #B

Q' ,, * '< * 0' +' &' .' +,, -' , ',* ' ' 4* ,< - '
' '+& *' & ** ,,' +,' + & *' & ** ,,.+6 '? & ' & ' C 0'
.+6 ' , ' .' G *- ' +*' 6 ' , ' .' G *- ' .' +' -* ' .'
/ ' . < ' .' / ' ' +*' 6+*' .' - *(' +,'
)+ *' P,,+*' ?&+6' &' ' +'/' ? * / Z .' , ' +,, - *'
8 ' .'+&"' 6 6/ *'+,')+ *' .' +' -& 0' & 6' , '
+,' ' .' & '* F *'? &', D' <+? *' +' & 6' +' < ,' .'
- 7' ' ,, ' - '-+66+. ' <*+, ' .' . ? '
'?& T, 7*' < * 0' +' &' .' +,, -' ? &' /+/.? '
,-& ' .' 6 *- 6 '+,' &')+ * '+,' &' .' & ** ,,.+6 '
.' 0 * D '? &', ' / * ' +' & 6' +,' .+ 0' - 0' .'
G *-, 0' ' .'?& +6 7*' & 0'< * 0' .'/ + 0 '
0' +' &' .'+,, -' , ', ' .',* ' ' '* ,< - ' ' '
+& *' & % ,,' +,' & ' & * '+*'0,' '+& *' & ** ,,.+6 '? & '
& ' C 0.+6 '& 7' , .' .' , ' G *-, .' ' &' .'
+,, -' ' ' 6'/ 0 '+*' 6 ' , D ' G *-, ' .' & '
,* 'F '? ' .' '< -'? &+ ' '* 7+- + ' .'
&' .')+66 '+,' 1 ' +*. ' .' <<+ '& '<* H
')+66, + ' +' -+ +?' .' . * ' ' 8.'?& ' &'
C 0' 8 '. - *'& '< , *'& * ' 0 .'/'? *'
* .' .' ' 6'+,' &')+66 F+,' 1 '/'&' ' ('+,'
E 6 + '& *'<* . ' '1. / *0&' &' 0& &'. '+,'
'9K'78\'1 0& ' ' *

%E1')+66 '+,' 1 '.+'+*. ' &** ,, ' - '+,'
< -' .' 0 '+,'> *0&' +' - ,', *)&'&+*, '? &'
- *' .'7 & *' - ** 0',+*' - ** 0'+,'/ 00 0' .' 66 '
+ ',+*' &' , ' +,' &'< * ' +' 3 * ' 8+*' C '
? . *' &'-+66 .'+,')+ + '5 6 ' .' ,' .'/' & '
& '<* , '&+*, ',+*' & '< *<+,

%E1')+66 '+,' 1 '.+'+*. ' &** ,, ' - '+,'
-+66 . 0' +,, -*' ' &') , '+,' * 0' +' . 7*' +'
/ * D'+,'<+?. *' .'/ ' .' 6 -&'-+ ,+*6',& * +'+ '+,'
&' 0 S ' ' &' .') '+'=7 ')+ + ') '
.'+*'&'+*. *',+*' &' , '+,' &' =+*.' 0 '& '5 0 6 '
.' (? ' +' . 7*' +'& 6',+ *' & .* &'< -('+ '+,'
&' .' 0 S ' <+ '& '* - <' & *+,

25'151'' +'/' &')+66 '& ',+ *'& .* &'6 ('
/'. 7 * .'/')+ + '> ,+? *' +'=7 ')+ + ') '
.'+*'&'+*. *',+*' &' , '+,' &'=+*.' 0 '& '5 0 6

'=1%%15',*+6' &'= *.'+,' -& /* -(' +' &'=+*.'5+,'
'<* . '+,' &')+66 '/ 0' * .' &'= *',+ +? 0'
? '. * -' +'& 6

9I' ? *' +' + *' = *' +' &'=+*.'5+,'+,' &' G &'
'&')+66 '& ' * . ' ' '. -&6 '+,' 0&'
)+6< ' +' + *' , , -'? &') < 'A+ 0'?&+' '
** 7.'7 &' + ' ' +' +'& .* &', * +-(' *'07 ' +'&'
=+*.'I D') 6</ ',+*' + *' , ' .'6+*'<+?. *' & '/' '
'F -K(' '6 '/' /+' 4<* ' +'/ *'<+?. *' - '/'
,,+*. .' '6 '?* ' +' +& ' . * + '+,' '+?& D' .'&'
? '+*. *' < *+ & ' +'/'6 . ',+*' + ' '3 0+?' +'$
0 , 0'&' 6/ *' .'&'/+*' + '?+ .'&7'& '+,'
' +' '6 '?* ' +' +& ')+-&* ')+ - +*'?& 'F '
+,'6 ' ' .' .'?& *' '. ' ' +'/'- ** .' .'&'? '
.' ',+*' &' , '+,' &' ,,+*- ' +'/' +? .' ',& *'< '%& '

%E1')+66 '+,' 1 '.+'* -+66 .' +')+ + '> ,+ *'
> 0 . *'3 * ' +' - , '. 7*' ')** / ' +' *' : H
6'E+<',+*' &' , '+,' &'%*++<'? . *'& '-+66 .' <+ '
&'* - <' .'+/ ,6 ' +' 6 (' & 6', *&-+6 0',+*' &'
< /&-' *7 -

%E1' = *'? . *?* ' ' . * -' +') < ': 6'E H
6 + ' .') < '+&'>*+

3456'= *' +,' &' 7 &' +' 6',*+6' '+ +-& . '*+ .'g'
-+66 - ' +8 &')+66 '+,' 1 ' .' & ' *'? '
, .'? &' &'-+ . -' + '& 7'& & * +'+/ *7 .' <+ '&'
9*,, &-+ ,' %& ' ,' + . *'g' ' + '? ' & ' + ' &+ .'-+ '
- **' ? &') < '5++(' * '1 0 &' 6 ' +,'? **' ?&+'? &'
7 * '7& *' &< '+,'? **' ? '+*. * .'/' .6 * 'E */ *'
+' -* S' <+ ' & ,' -+ , '/ ' &')+66 '? . * . 0'
& '&'&0& . *' 'C *' .' '& .'6 .' 7 * '+,'
& *'> * 0' .' (' J* -&'7 , ' & '? ' 'C *'
.'< ' +6'0 '+'& *' .' - ** .'& *' +' D'%& '
& * ,+*' +*. ' + ',+* &? &' +'-* S' <+ '& '-+ ,'+,' C '
*' .'+? *.'& 'E '+,' ' .' & *' / '/* (' ('
.'. *+' ' & '7 , ' + '- ', .' & *' ' '+*' '-* ('#
/ + 0 0' +' &' 6 '?& * 7*' + '- ' * -&'& 6' .'/'
- *, ' +' .' --+ '+,' + *'. 0 - '+' &')+66 ' .'
+'-+** <+ .'? &') < 'A+ 0'?&+' / 0' ' +' & '
)+ *'? &' . -& .'< * '& '. , < '+6'+,'&, ') '
$?&+' ? *'0+ '+0 & *' (. '+*' ,' + '- +' ' +' + 0' '
' '& '+'-+6 ' +'= 6 &' .'& *'* - 7', *. *'+*. *'
.',' + '/' *') < '5++(' + '6 ' -F '& 6'? &'
& '/ 0' ' '<* ',*+6
A+ *'6+' , * .',*
-' / -*/ *' E 9=%2I'

%E1')+66 '.8+ * .' +' . ' ' '- +-(

%E1')+66 '+,' 1 '.+'* -+66 .' +')+ + '> ,+ *'
> 0 . *'3 * ' +' - , '. 7*' ')** / ' +' *' : H
6'E+<',+*' &' , '+,' &'%*++<'? . *'& '-+66 .' <+ '
&'* - <' .'+/ ,6 ' +' 6 (' & 6', *&-+6 0',+*' &'
< /&-' *7 -

%E1' = *'? . *?* ' ' . * -' +') < ': 6'E H
6 + ' .') < '+&'>*+

3456'= *' +,' &' 7 &' +' 6',*+6' '+ +-& . '*+ .'g'
-+66 - ' +8 &')+66 '+,' 1 '.' & ' *'? '
, .'? &' &'-+ . -' + '& 7'& & * +'+/ *7 .' <+ '&'
9*,, &-+ ,' %& ' ,' + . *'g' ' + '? ' & ' + ' &+ .'-+ '
- **' ? &') < '5++(' * '1 0 &' 6 '+,'? **' ?&+'? &'
7 * '7& *' &< '+,'? **' ? '+*. * .'/' .6 * 'E */ *'
+' -* S' <+ '& ,' -+ , '/ ' &')+66 '? . * . 0'
& '&'&0& . *' 'C *' .' '& .'6 .' 7 * '+,'
& *'> * 0' .' (' J* -&'7 , ' & '? ' 'C *'
.'< ' +6'0 '+'& *' .' - ** .'& *' +' D'%& '
& * ,+*' +*. ' + ',+* &? &' +'-* S' <+ '& '-+ ,'+,' C '
*' .'+? *.'& 'E '+,' ' .' & *' / '/* (' ('
.'. *+' ' & '7 , ' + '- ', .' & *' ' '+*' '-* ('#
/ + 0 0' +' &' 6 '?& * 7*' + '- ' * -&'& 6' .'/'
- *, ' +' .' --+ '+,' + *'. 0 - '+' &')+66 ' .'
+'-+** <+ .'? &') < 'A+ 0'?&+' / 0' ' +' & '
)+ *'? &' . -& .'< * '& '. , < '+6'+,'&, ') '
$?&+' ? *'0+ '+0 & *' (. '+*' ,' + '- +' ' +' + 0' '
' '& '+'-+6 ' +'= 6 &' .'& *'* - 7', *. *'+*. *'
.',' + '/' *') < '5++(' + '6 ' -F '& 6'? &'
& '/ 0' ' '<* ',*+6
A+ *'6+' , * .',*
-' / -*/ *' E 9=%2I'

%E1')+66 ' .8+ * .' +' . '

5 0 6 ʻ & ʻ 6 / *ʻ +,ʻ ,,+ *ʻ & 6 .* &ʻ .ʻ ? ʻ 6 (ʻ ,+*ʻ & ʻ , ʻ +,ʻ & ʻ 5 0 6 ʻ <+ ʻ * - <ʻ ʻ +ʻ & */ ʻ 0* 6 ʻ ? * ʻ * .ʻ +ʻ & ʻ (< *ʻ +,ʻ & ʻ 0 S ʻ +,ʻ & ʻ) ʻ +,ʻ * ʻ +ʻ . 7 *ʻ +ʻ & ʻ .ʻ R -+ ʻ +*ʻ & ʻ +*. *ʻ & ʻ & *ʻ +,ʻ ʻ & .* .,ʻ .ʻ 0& ʻ< -(ʻ,+*ʻ & ʻ , ʻ,+* .ʻ+ ʻ* - <

d ; ,ʻ#?ʻ, 1 =<C; A < =#ʻ#?ʻ < ;@B-

2 5 ' 1 5 1 ' ʻ & ʻ & ʻ R -+ ʻ +,ʻ C 6 * ʻ 5 0 6 ʻ 6 *-&ʻ +ʻ ' 6,* ʻ .ʻ F * *ʻ & *ʻ 7 ʻ, * & *ʻ +*. *ʻ .ʻ & ʻ & * ʻ +,ʻ ' 6,* ʻ << .ʻ +ʻ, * D&ʻ,, , ʻ&+*, ʻ +ʻ - ** ʻ & ʻ,,+ *ʻ & .* &ʻ .ʻ ? ʻ 6 ,(ʻ,*+ 6ʻ = &ʻ,+*ʻ & ʻ , ʻ+,ʻ & ʻ 5 H 0 6 ʻ .ʻ ʻ& .* &ʻ .ʻ 0& ʻ< -(ʻ,*+6ʻ * 0ʻ K

ʻ=1%%15ʻ,*+6ʻ & ʻ1 * ʻ +,ʻ 10 0 + ʻ +ʻ & ʻ =+*.ʻ 5+, ʻ ? ʻ * .ʻ 0 7 0ʻ ʻ --+ ʻ & ʻ%&+6 ʻ J *0 + ʻ .ʻ+ ʻ & <ʻ : *ʻ S .ʻ / ʻ& 6ʻ ʻ & ʻ . .ʻ ʻ ʻ/+ ʻ,*+6ʻ9* .ʻ ? &&ʻ,+ * ʻ &+*, ʻ .ʻ ʻ + & *ʻ ,*+6ʻ & ʻ *7 *ʻ ʻ *ʻ ʻ & ʻ / ,ʻ (ʻ+ ʻ \,ʻ & ʻ J* -&ʻ & < ʻ C * ʻ ?& 8<<+ ʻ & ʻ,+5+? 0ʻ +*. *ʻ ? ʻ0 7

; ,ʻ = =#ʻ B?; W ʻ EB @Bʻ@ < ʻ 9 !;?<ʻ*; 8 =

%E 1ʻ)+6 6 ʻ +,ʻ 1 ʻ .+ ʻ 0 7 ʻ ? ** .ʻ Qʻ +*. *ʻ +ʻ %&+6 ʻ 8 ** ʻ *7 *ʻ +,ʻ & ʻ<* - -ʻ+,ʻ *ʻ +ʻ - ,ʻ . ʻ Fʻ & ʻ- ' *ʻ ʻ , * & *ʻ +*. *ʻ & ʻ / ,ʻ?& -&ʻ + ʻ S .ʻ+ ʻ ʻ *ʻ .ʻ?& -&ʻ - 6 ʻ & *ʻ / ʻ al 9 ʻ .ʻ & + ʻ .ʻ ʻ +ʻ & ʻ %+? ʻ & ʻ &+*, ʻ (ʻ / + 0 0ʻ$ +ʻ %&+6 ʻJ *0 + ʻ?& *ʻ *ʻ+,ʻ & ʻ7 ʻ+,ʻ ʻ<+ .ʻ * 0ʻ +*ʻ /+7ʻ & ʻ 6ʻ .ʻ +ʻ ʻ -&ʻ &+*, ʻ ʻ *ʻ? . *ʻ & ʻ 7 ʻ/ ʻ*+ <ʻ ʻ & ʻ 0&ʻ .ʻ / ʻ & ʻ .7 -ʻ+,ʻ ʻ : 6ʻ 5+.0 *ʻ)+ -+*ʻ+,ʻ *,& *ʻ .ʻ & ʻ,* ʻ6+ ʻ & ʻ,& ʻ / ʻ 6 .ʻ & *+,ʻ +ʻ / ʻ ʻ* . ʻ ʻ & ʻ- ʻ+,ʻ *ʻ *-(ʻ ** ʻ 3 * ʻ5 - 7 *ʻ 4

%E 1ʻ)+6 6 ʻ +,ʻ 1 ʻ .+ ʻ 0* ʻ? ** .ʻ +ʻ *ʻ : D 6ʻ E+< ʻ +ʻF * *ʻ & ʻ %*++< ʻ? . *ʻ & ʻ -+6 6 .ʻ ,ʻ> &0 ʻ .ʻ< - ʻ & * /+ ʻ7 ʻ, * & *ʻ+*. *

%E 1ʻ *ʻ? . *ʻ?* ʻ ? ʻ . * -ʻ ,*+6ʻ & ʻ)+6 6 ʻ +ʻ 8+*ʻ 3 * ʻ @C

95ʻ

%E 1ʻ)+6 6 ʻ +,ʻ 1 ʻ . .ʻ * 6 ʻ + ʻ ʻ, ʻ ? * ʻ +ʻ 7ʻ * + *ʻ *ʻ,*+6ʻ9 7 6 , ʻ+,ʻ & ʻ & * & ʻ? & ʻ & ʻ<* ʻ ; 8ʻ 1 > - < ʻ .ʻ)+6 6 , + ʻ + ʻ ?* ʻ,+*ʻ & * ʻ .8, . 0ʻ & ʻ & ʻ &+*, ʻ +ʻ / ʻ 7 .ʻ , * &ʻ +,ʻ & ʻ =+*.ʻ=+7 ʻ .ʻ & ʻ1 * ʻ+,ʻ ,+* &ʻ & *ʻ . 7 , + ʻ+,ʻ & ʻ & * ʻ+,ʻ9 7 * , ʻ .ʻ & ʻ & * ʻ +,ʻ 5+, ʻ & * .ʻ .ʻ) & ʻ ? ʻ / ʻ ,, - Lʻ +ʻ & ʻ *H 7 - ʻ7 ʻ + ʻ <<+ ʻ, ʻ< *,+ ʻ +ʻ * - 7ʻ & ʻ 6ʻ,*+6ʻ & ʻ . * ʻ ʻ & ʻ& .ʻ > *0& ʻ+,ʻ & ʻ* G 7ʻ & * ʻ -+ ,+*6ʻ +ʻ & ʻ -ʻ+,ʻ & ʻ 1 ʻ .ʻ+*. *ʻ & 6ʻ +ʻ / ʻ /*+ 0& ʻ + 0ʻ ? & + ʻ +ʻ / ʻ . 7 . .ʻ,+*ʻ -+6< 0ʻ & ʻ* < - 7ʻ%*++< ʻ%& ʻ & * ,+* ʻ * -+6 6 .ʻ +ʻ + ʻ & ʻ - * ʻ+,ʻ & ʻ / , ʻ .ʻ ʻ + ʻ , .ʻ - , ʻ ,+*ʻ ʻ & ʻ + ʻ -F ʻ & ʻ)+6 6 , + *ʻ+,ʻ & ʻ << ʻ?&+ʻ *ʻ +ʻ <<+ .ʻ)+6 6 , + *ʻ ,+*ʻ & , ʻ 7 ʻ +ʻ< ʻ + *ʻ +*. *ʻ & * ʻ +ʻ ,, - ʻ G - + ʻ .ʻ,+*ʻ + *ʻ ,+*6 + ʻ ʻ & ʻ< * - *ʻ + ʻ& 7ʻ G * - ʻ+,ʻ & ʻ +ʻ - ʻ+,ʻ & ʻ 1 ʻ* 0ʻ +ʻ & ʻ ,, *ʻ& *ʻ - +, .ʻ .ʻ ,ʻ + ʻ, .ʻ & ʻ & ʻ&+*, ʻ : &ʻ & *ʻ *6 ʻ .ʻ, * *ʻ- +ʻ / ʻ0+ ʻ & ʻ + ʻ - ,ʻ< 6 ʻ / ʻ 6 .ʻ +,ʻ,, , ʻ<+ .ʻ * 0ʻ ,+*ʻ & ʻ &+*, ʻ *6 ʻ .ʻ, * *ʻ .ʻ, , ʻ & 0ʻ * 0ʻ ,+*ʻ ʻ . ʻ< ʻ+,ʻ -&ʻ &+*, 6 ʻ +ʻ -&ʻ< * + ʻ ʻ + ʻ & 5ʻ <<+ ʻ%& ʻ / ʻ ? ** .ʻ *.ʻ ʻ 6 ʻ+,ʻ & ʻ)+6 6 H ʻ+,ʻ1 ʻ ʻ 0 , .ʻ +ʻ + ʻ /

A+ *ʻ & 6 / ʻ *7 <

-ʻ / -*8 / , *ʻ E 9=%2 Iʻ

%E 1ʻ)+6 6 ʻ +,ʻ 1 ʻ .+ +*. ʻ & ** ,, ʻ - ʻ+,ʻ . ;ʻ !?;ʻ < -ʻ .ʻ 0 , * ʻ+,ʻ > *0& ʻ +ʻ - , ʻ, * , ʻ/ 00 0ʻ &+*, ʻ ? &ʻ - ** .0 ʻ,+*ʻ * ,<+* 0ʻ +,ʻ & 00 ʻ .ʻ 6 6 +)ʻ ,+*ʻ & ʻ , ʻ+,ʻ & ʻ 5 0 6 ʻ? . *ʻ . ʻ-+6 6 .ʻ+,ʻ ʻ 6 ʻ

!C;= ʻB =Aʻ D AA Aʻ B?;

= , ʻ ,ʻ+6ʻ < -ʻ +ʻ< -ʻ7 5ʻ & ʻ-+6ʻ +ʻ. *ʻF * *ʻ ʻ J+*, *ʻ .ʻ ,ʻ .ʻ / ʻ & ʻ & ʻ<* , ʻ&+*, ʻ +ʻ & ʻ< *<+,

; ,ʻ = =#ʻ B?; ʻ EB @Bʻ@ < ʻ 9 !;?<ʻ*; 8 =

%E 1ʻ)+6 6 ʻ +,ʻ 1 ʻ .+ ʻ +*. *ʻ = 7 ʻ)+ + ʻ 3* & 6ʻ +ʻ .ʻ G ʻ+,ʻ & ʻ& , ʻ 6 ʻ+,ʻ& ʻ)<6< ʻ ʻ & ʻ =+*.ʻ > *0 ʻ5 0 6 ʻ +ʻ 8+ ʻ & ʻ . - ʻ? . *ʻ & ʻ -+6 6 .ʻ+,ʻ) < ʻA+ 0ʻ ʻ 0 ʻ & *ʻ +ʻ / ʻ . <+, .ʻ+,ʻ / ʻ & ʻ .ʻ) < ʻA+ 0ʻ 6+ 0ʻ & ʻ 7 * ʻ)+6< ʻ+,ʻ & ʻ .ʻ . -&6 ʻ ʻ& ʻ5 5ʻ & (ʻ, ʻ +ʻ *7ʻ ʻ *7 ʻ .ʻ-+,,ʻ <+* ʻ ʻ & ʻ . ʻ)+6< ʻ,+*ʻ & ʻ G *- , 0ʻ2,ʻ& 6

d ; ,ʻ = =#ʻ #B ʻNC ;# ʻ =Aʻ ?!ʻ (;ʻ 2 88 <ʻ ?K ʻ%;??K -

%E 1ʻ)+6 6 +,ʻ 1 ʻ .+ ʻ 0* ʻ? ** .ʻ +ʻ *ʻ : D 6ʻ E+< ʻ +ʻF * *ʻ & ʻ %*++< ʻ? . *ʻ & ʻ -+6 6 .ʻ ,ʻ> &0 ʻ .ʻ< - ʻ & * /+ ʻ7 ʻ, * & *ʻ+*. *

%E 1ʻ %? ʻ +ʻ ' ʻ+,ʻ ʻ9K 8\ʻ1 0& ʻ< ʻ *

%E 1ʻ)+6 6 ʻ8+,ʻ & ʻ 1 ʻ .+ ʻ & */ ʻ* <+, ʻ .ʻ* +* ʻ E * ʻ 5+5+ʻ+,ʻ : ++. . ʻ +ʻ / ʻ)+5 - +*ʻ+,ʻ & ʻ) +6 ʻ .ʻ ,,+** 0 ʻ G- , ʻ ʻ & ʻ <+*ʻ +,ʻ >+**+? + ʻ , .ʻ? & ʻ & ʻ <* - -ʻ & *+,ʻ ʻ & ʻ 6ʻ6 *ʻ ʻ& ʻ? ʻ<* - , . 0ʻ I+7 6H / *ʻ ,ʻ?& ʻ& ʻ? ʻ* 6+7 .ʻ & *,*+6ʻ ʻ +ʻ & ʻ .+ ʻ* <+ ʻ +& ʻ) . *ʻ +ʻ / ʻ *7 *ʻ ʻ & ʻ .ʻ<+*ʻ +ʻ* 6+7 .ʻ ,*+6ʻ& ʻ+,, - ʻ ʻ6 *ʻ,+* .

2 ;; = ʻ K?= =Aʻ = ,ʻ ?'?ʻ !ʻ 2??3 > ʻ#?ʻ D ʻ ?88 @#?;ʻ ʻ ?;;? #?C 7

%E 1ʻ)+ 6 ʻ +,ʻ & ʻ 1 ʻ .+ ʻ& */ ʻ0 7 ʻ : ** .ʻ + *ʻ * -(ʻ E+6 ʻ+,ʻ +5? *ʻ + ʻ +ʻ ʻ& 7 0ʻ & ʻ+*. *ʻ +ʻ Sʻ .ʻ . <+, ʻ+,ʻ ʻ - * ʻF ʻ+,ʻ<+? . *ʻ,+*ʻ & ʻ , ʻ+,ʻ & ʻ ,,+*- ʻ?& -&ʻ . ,-+7 * .ʻ / ʻ & ʻ .ʻ *ʻ * -(ʻ E+6

d 2 ;; = ʻ#?ʻ

%E 1ʻ)+6 6 ʻ ,+*ʻ - * ʻ & ʻ < - ʻ .+ ʻ 0 7 ʻ +*. *ʻ +ʻ 6 , 0 *ʻ ʻ *6 ʻ +ʻ - ʻ & ʻ R -+ ʻ +,ʻ +*6+ &ʻ .ʻ *ʻ +& ʻ ** ʻ+,ʻ ' * 6- * ʻ +ʻ -+6< *ʻ / ,+*ʻ & ʻ 6 0ʻ +,ʻ & ʻ 1 ʻ +*ʻ & *ʻ)+6 6 ʻ +*ʻ / ,+*ʻ ʻ * .ʻ ? &ʻ & ʻ 3+7 * 6 ʻ ,+*ʻ & ʻ 6 ʻ? & ʻ,+ * ʻ 0&ʻ&+ * ʻ , *ʻ - + ʻ +ʻ ? *ʻ +ʻ & ʻ ,+*6 + ʻ0 7 ʻ ʻ 0 ʻ & 6ʻ+,ʻ-+** <+ . 0ʻ? &ʻ & ʻR -+ ʻ+,ʻ ' .

d 2 ;; = ʻ 6"ʻ+ @ # =Aʻ#B ʻ @?C=#ʻ?!ʻ (#?;<?=#B'Qʻ (;ʻJ?B=ʻ C;; >-

%E 1ʻ)+6 6 ʻ ,+*ʻ - * 0ʻ & ʻ < - ʻ .+ ʻ 0 7 ʻ +*. *ʻ .ʻ ? ** .ʻ +ʻ & ʻ 1 * ʻ+,ʻ . ʻQʻ & ʻR -+ ʻ+,ʻ C 6 =*-ʻ +*ʻ & ʻ-+6 6 . 0ʻ +,, - *ʻ +,ʻ & ʻ 1 * ʻ +,ʻ . ʻ %*++< ʻ +*ʻ & ʻR -+ ʻ+,ʻ C &6 * ʻ 5 0 6 ʻ <+ ʻ 0&ʻ & *+,ʻ +ʻ Sʻ <+ ʻ & ʻ&+*, ʻ /+7 ʻ & ʻ 7 ʻ+,ʻ 0&ʻ <+ .ʻ * 0 +,ʻ ʻ< <, ʻ ? & ʻ & ʻ & * ʻ +,ʻ ' 6,* ʻ .ʻ ? * * ʻ +,

; ,ʻ#?ʻ @C; ʻ #B ʻB?; ʻ =ʻ ;< ʻ?!ʻ K K # ʻ =ʻ +C<!; ʻQʻ # E ,#; ʻ?!ʻ 1 ;"@C DC;AB

```
                                                
```

%B 'D = '?!' C# ?=; 'E ' #B ; !# ;'A =' K'D>'?; ;

> * & D / -+6 0 - + * ? . * & ', 0 '+,' & .* & <+ . ' * 0 6+ ' & ' & ' & ' * + 4 /+ *.' & ' .' 6 '+,'? **?& 7 *& ' & D / ' - .',+* & ' ,, -' .' & ' .')+66 ' .+' -((' +*. ' & 6 +' / ' ' ' / * ' ? &+ '< 8 '+,' '+,' & <* + '. '+*<+* *, '?& ' - + '? ',+ .' / '& 6 --+*. 0

%E1'%? ' & *.' ' '+,' '9K78\'10& ' ' *

'=1%%15',*+6' & ' 1 * ' +d ** ' e+ & '<* . '/ 0 * .'07 0 --+ ' & '& '& .'- , .' <<* & .' 7 * '< *' + '0+ 0 +'8+ ' & 'R -+ 6 '+,' ' . '%& ' * . *H ?* '? '. * -' +'& 6 ' $

A =25 '

'8 H# ,' #?'#B '& ;8 '?!' ##

9 E R1' -+66 - .' + * = *',+,' & ' ? ' +' ' +' & ')+66 '+,' 1 '?&+' <<*+7 '+,' + * - * ' Q' .2 ' 0 -' .' <<. ' + ' +' (< & , '< * + ' + '& 7 ' S .' <* + * ' ' & ') '+,' * 0 ' +6 ' + & * -+ 7 ' <*,+ ' / ' <*+7 . .',+* & 6' %& ')+66 '.+' +'+*. * + ' +'< ' \' 3* & 6 ' & ** ,J . < '+,' * 0 ? . * / ' +' << * / ,+* & '1 '+* & , '& ' & '/ ' * , .' ' & ' 3+7 * 6 ' .' ,' & ' * , , ' & ' 6 ' & ' + ' - * ' & 6' %& '.+' ,+' <<*+7 '+,' + * +*. * ,+* +< 0 & '- ** 0 ? '+,' & ' 6 ' ' & '1 * '+,' * & '3 6 ' .' ?& '), < '>* -' & ' +6 ' & * & '9/ '* - 7 ' ,* - + ' ?& ', * & *& ' ' +'.+' .' :& * ' + ' / ' + '?+ .'/ ' - * , L' & ' & '- + * ' / ' +' -& < * + ' ' * ' ,< -' & 6 7 '%& ' ' 6 '+,' & ')+66 ' ' 0 , .' +' + '/ ' A+ *' =+' & 6 / ' *7 -' /)* / * E 9=%2 I'

,+*& 6 / ' R 7 0' & ' 3* -' .' =+' <+ '-+ . * + '+,' & '<* 6 ,8< .' & ')- , ' & *+,' +' <<+ ' '*+ < ' +' / ' 6 . '+,' & ' .' '+,' R , .'* ' .'- '? & ' & K' 0&)+ , D' &+ , '+,' 1 . / *0& <+ ' & ' ? & . '+,' ' G ' / ? G ' ' .' 7 &'+,' '- +-(' ' & 8,+* ++ ' . +' +6 ' .' <<2 '+,' & * =+' 6 / * +' / '8 .0 ' +8 & ' .'*+ < ' ? &'<+? * +' & 6' +'+*. *'< -- ^ & *+,' +' / 4 ,, G .' <+ ' ' - , * .'-/ 7 '< - ' .' +' '.+? 4 & '-+ . + '+,' & ' *+ < ' .' +'0* ' - ' -)+*. 0 ' .N +' .+ ' 7* ' + & * & 0' & * ' - , *F .' ' ' -&- , ' .' ' & ' 6 8 6 ' D' & ' *+ < ' / ' 6 . ' ,, - ' +' &+* S ' G . *' >*+ D ' 8 * '0* 7 'K ' & '-+ ' .' ' ?+*(' +'+7 *, ' & ' .'& D' ?+*('(<' & ' *7 '+0 & *' .' ' ?+*(' -+ -' .' 0 & *' '<*+. -' .' / , ' * , 0' & */ ' < ' & ' *7 ' .' +' &+ .' -+6<' +' & 4 -(6 ',+*' & ' *+6 , + ' & ' & *' & '?+*(' +*'-* . ,' +* ' / ' <* 8 .0 .' ' 1 ' .' << - + ' / * ' : & -&' / 0' $)+ . * .' / ' & ' F8.')+66 '+,' 1 ' & '0* .' & ' . * ' & *+,' .'& 7 '+*. .' .'& */ '+*. ' & '*+ < ' +' / ' 6 . '+, & ' .' '+,' R , .' * ' .'- , D' .' ' & 7 ' &+* S .'K .' & */ ' &+* S ' *')& * ' E -('+,' , ** ' .' ' : 6'E 6 + ' +'+,' & *' 6 / *' +' / ' 8 .0 ' +' & ' .'*+ < ' .' & '*+ < ' +' <*+- .' ' & 6 *c Q' ' & '. ' /+7 6 + .'Q' ' & ' 6, ' 6 ' &+* S &N & '<* , '0* 7 ' ' & '-+ ' +'-+ +?' '6 *' &+7 ,<

I 1 I %' & ' << - + '07 ' <' .'<* .K' +' & ')+6 ' 6 '+,' 1 '/ ' ' 7 .'> -& ' - +,' <* ,+ *' ? & ' & ' %+ /+2 &' +,' 1 . / *0& & ? 0' & ' & '< + *' & 7 0' 0+ ' +'1 0 .' ') *(' +' & ' 5 0 6 ,' +,' &+*, '?& -&' ? ' ? . *' & '-+66 .'+,' & 'R -+ '+,' '76. ' +?' ? . *' & ' -+66 .'+,' & ' =+*._' (*(' & ' .' ' 7 .'> -& '. .')+ ' ' & ' +,, -' ' -&' 6 ' ' & ' =+*.' (*('K& ')+66 , + '? '* .'+' & '1 '+,' & ' 5 0 6 ' .' & .' @# ='! ' @ n' ?!'+ 0 C@B = = ' K; ?= ;

/ & .' + ' \'E 6D . ' ') *(' +' & '1 * '+,' ** ' ' & '< + *'< - ' .' , *' & '< + *' -+ ,+*6 ' +' & ' =+*.' ' . '-+66 .'& .'- * .'? &' & '%*++< ' .'< .' & 6' ' & '? '+? 0' .'? . * . 0' & ' & ' .'=+*.' (*(' & .' +' *7 - ' ,+*' & '< + *' & ' . .' 66 . ' ? &+ ' 7 *' & 7 0' * - 7 .' ', * & 0' < ',*+6' & 6' +*' / 0' . * .' / ' & '< + *'=+*.' +' 8*' -+6 ' .+? ' +' -+ .' / ' ' .'/*+ 0& '? &' / * +6 '+,' & ' =+*.' ' . '0++. ' P?& -&' & '& .' '& '- +. Z ,*+6'=+ .+ ' +'= &' ?& -&' & ' ? '+/ .0 .' & ' +'.+,' '& ' *7 ' , .',*+6' = &' * ,+' <+* .' & 6 +7 *' +' ' . +<' > ' & '< + *',, . 0 8 & ' & ' .'R -+ '& .' +' 6+*' *7 - ' ,+*' & 6' . .' & ' + 0' 6 ' ' / ,+*' / '? ' . - * .', 0 7 '. , *' & ' *7 - ' +', **' '& ' 7 *' -+ 7 *, .' ? &' & 6' - ' , + ? / >. 0' <+ ' +6 ' ,< - + ' +*' 6 ,* <* + ' & *' =+' & 7 ' - , .' $ <<* & .' .' < ' & '< + *' '-+,' <* + '?& * '& ' ' * . - .' +' & '0* ,' +,' G * 6 ' .' 0' + & 0' - ' / '6 . ' << *' 0 ' & '< + *' / '?& ' ' /+7 ' ** .' .' & ' & ' ' -+ ' +' , .'?& ' - + '& ' ' / ' ' ' *7 ' +' -+6< *'?& '- .' .'%& * ,+*' & 6& '-* 7 0' & '3* -' .' & *' =+' +' (' & '< + *' .'- -' +' & *' *+, ' -+ . * + ' .' +*. ' & '< + *' +' / ' ' ' / * , ' <+ ' -&'- + ' ' & ' ' / ' ' ' *7 ',+* .' +*' 7 & *? ' +?' & 6' & ' / * ' +,' ,* ' <* + ' & ' & ' ,* .' 6 '& 7 ' -- , ' +' & 6' ,+*', *. *' -+ 7 - 0' +,' & *' =+' +,' & ' +- - ' .' & ' +?' & 6' +6 '+,' & '+? ' +' 7 ' <+ ' ' & ' .' << - + ' / * ' : & -&' / 0' -+ ' . * .' / ' & ' .')+66 '+,' 1 ' & '& */ '+*. ' & '< + *' +' & 7 ' ' ,* ' <* + ' .' & ' -&' < * + ' ' & 7 ' ,, * ' ? &' & 6' 6 '& 7 ' -- , ' +' & 6' ' ,+ / ' 6 '<*+7 . 0' ? ' & ' / ' (< .' - * ' .' & ' & ' *7 '+,' & '%+ /++ &' +/ *7 ' -&' ' & '-+** ,<+ .' ? &' & 6' .' ' .' & *' & *' -+ 7 *,' .' & ' +' < < * ' / ' . 7 * .' ? G ' & 6' ? &+ '/ 0' '/ ' & ' . ' *7

/ &&#) (' * ' % &' / 0* & %' $' 1*)' 2 *00* ' 1 +' 3 '&& ' '

0 + & ' +' &) ' ' %'&+* ') ' / *0' , 4' + ,

, ' : @ ' + ,

$%E1' < -&',' E '3* -'3 +*0'1 * ', 7 '%& *'
8 ' E 0&')+66 , + *' ' &' +< 0' +,' &
$ -+ .' ,, + ',' &'J * ' * 6 ' +,'%& *' 8 '
'C 0.+6',' -+ .'

'=+*.' .'3 6
%E9' ,, + ',' * 6 '& .'/ 'E+ + * .'? &' &' * '
, '+,'6'1+ ' *'& .' +' &'0* '# ? 0&',' ,, *'+a
& '& .' &' 0' +,' &' *& 6 ',' 1 0 .' .' &'
. 0< .' G< . + ' +'9* .'. <*7 .' + ',' & 'E <<8 ,'
.' , - +&'E\'* ' . .',+* +
.' &+'&', D'1 ,F7 ',+',<+ ' 'E '96<+* ' ,, *'- '
+?' E 6' +'R ' 'E ' 'C 0.+6' A ' -&' '
* 0 *.' & &' &' +' ?& ' 6 '/ ' ,+*' &' , - + ' +,'E '
+< ' & '&'?+ .' +' + 0 *' . ' + *' 0',+*' 0 7 0'
, -&' ' 6 ' +' &' I + ' '6 '/ ' '* ' - * ' +' '
6+'7 / ')+ - * ',+,'%* '5 0+ ' .' ,'= / *
) ' + '* , -' <+' &'0* '%& 0' &'E 'P ' &'9 , * '
8 6 ' ' &'E .',+,'3+.Z & &'.+ ',+*' + _') ' + ' & ('+,'
&+,'16 ' ' 0 * ' +'?& -&'P?& ' 7 0' ' &'0* ,'
E+ + *' ' .' - Z E '. .',+' 6 0 6+ ' G<+,'
E ',+*' &' 5 , 0' + ',*+6' & ,'0* ,' +,' 7D'
+< * ' .' 7 * ' .' ' 7 * 0' + ',*+6' &' * ' + '
? * '* . ' +', (' . *' .' +'-& *, '-+ - *' '.+ 0' '
& 0' &' 6 '/ ',+*' &' , - + ' .' , ',+,' + *'
' 7 * *'?& '= (.',+' 6 -&'? &' + *'+? '9 * '_ 4
'K9'/ 7' & *' *', ?' * ' *+ , ' .'0++.')+ * '
6 '?&+'?+ .' +'07', '&'& ,'+,'& *' 1 ',+*',+'
0* ' '> ,, 0'? *' ' +'/ '< *-& , .
E ' ,* ' *')+ , .' +' .'50 .'/ ' + *' * '
9 *,'e 8 ' ' 6 .' ' /, . '/ ' ' ' + '?& ' '
- , *',+*' + *' , '& ' - * 0'+,'?& ' '. *',' +' + '
.'& ' <<+*'+,'& '3+7 * 6 *'E '& &',< * .' +' G< ,'
& & *+'Q*' + *' *+ - + *' .' ' '/ ' ,+ / 'E '9&+ .'
+?'& 7' + *' ,, - ' ,, , - *' *' 7 *'/ '& ' +,'
+ *' I + ' & ' &'/ ,'+,'+ *'C 0' : '& '?+*,'%* .
'E '*, , &' + & 0' & '- '/ '8 , '. 6 . .',E ' -+ '
* 7 * .'50& ' *'+ 'R .'/ 'E 6' ' & ' *' , , ',+*'
+ *'3++.' .' - *
9' 6')+66 . .'/ ' &'C 0'P6 '=+*. ' .'3 6 Z +'
D' + '%& ' 'E '1 ,+7 ' +' 7' .'. ' ' &', - *'<*+'
, ,, + ' +,' & '%* ' *+ , '5 0+ *' J+*' &'6 -'
?& * +,'E ' ' 0 ' /+ ' +' G<+,'E '5+ ' *,+ ',+' E' '
? 0' +'-+ - *'? &' + ',+*' &' 6 ',')& *-&' .'
' <+ ', -&',+ .'J+ . + ' ' + ' .' +'0 ', *' '
* <,' +' + *',+*6 *' 7
''E ' '* . ' +'07' E '5+ ' ,, ' +'?& ' ' , -'- +'
/ '<*+<+ .' +'E 6',+*' - * 0'5 0+ *' = / * ' .' *+H
< * ',*+6' ', *'1 -*+ -&6 ' .',+*' 5 .* ,, 0' +,
+& *'3* 7 - .' +'- +'? &'* ,+'. 6 .' & 0'
?& -&'E ' ' +'? 04' +'0*
E ' 8 '+,, *'5 .* ,' +' & '+<<* ,, .' *.+ ' .' -'
+', /6 0'1 * ' .'<*+ - + ' + D'E '0++.' /8 - '
9' 6', * & *'96<+? * .'/ 'E ' 8 , ' +'07'E '5+ '
> **+? ' , -&'1 -+ * 0 6 ' .'5 .* ,' ' & '6 *'+,'
%* . ' .', -&' , ' ' * + ' +' & '<*+<+* + ',' & *'
> *. ' ' & ' * 6 '& D' & (',
:& ' & * 6 '/ ' & ' + '/ & 7'? &', -&'q ',+*' & '
3++.',' + *')+ 6 * ' ' +' '5 0+ ' .') 7')+ - * '
.' &'E+ + *',' + *' * - ' ' & ' ,, + ',' * 6 '6 ''
& 7 '9,, '?& -&'6 '/ ' +' & ', , - + ',' /+ &
9'9&+ .'/ ' 8 * + ' +' + ' +'.+ /'+,' & '+*' +' & (' + '
.' '< *,? , + ' +', ' /+ ' & , ' & 0' ,, - '?& -&'
*',+'6 -&' + *'2?'-+ - *
A+ '(+?' & ' ',' &+ '?&+6' + ' * <* , !' ' ,+' +,'
+ *' I 0&/+ * ' .' 7 ',' + *'1 6 ' *' <+ ' + '
G< - 0'?& '6 '/ ' &', , ',' + *' 0é 9 '?& -&'
& 'C 0' ' ' ? ' ' 'E ' /8 - ' .'+ *' *+ , '
J* .' /*+ .' *' +' ' -+ - * .
A+ ', .' +' & '9' * -? 6 . +' + ' & ' 0' , . ' '
6+, ' -F ' .'T ** ' .'9& 0' '+-- , + ',' +'
)+ + ', 0' & ' ',+' 6 -&' + *' +? '9 * , ' .' & '
+ '? ' . 7+ *' +' 7 . -' +' & ' : +* .' & ' ' ' +'
<*7 '+*', , &' ' , 0 g/ 'A ',+*'3+.' .' &' * '5 0+ '
.' +7' +' + *'C 0' .')+ * '?& -&' , - '+
9'? & & *'6 '/'6 ',+ .' 6+ 0,' + ' ' & '6 0'
('&+ '?&+'* <*, .' &'%* /' +,'9 -& *',+* , 0' &''
C 0.+6' ' &'E .'+,' ' 7 .' 6 '?&+' & .' . *, . 0'
+,' &' 6 ' +'(+?'?& '9 * '+ 0&' +' .+
9'&+<' + '? ' +' (' ' '& 'g'6 .' + '+,' & ' , , '<* H
- <'+,' &' <+ '= ' + *' +. * + '/ '(+? ' +' ' '
,+*' &' 6,* .'+,'+ *' I + '& 7' ('+-- , + ' +'* <*+ -&'
'6+*',2*' &'7 & 6 - '+,'+ *' 6< * ' & ' '& 0' ,
',+*' ' ,' ' =+*.' .' 3 6 'P?&+6'E '
8 , '& &'&+ + * .'? &' ')& * - *', *' /+7 6' 6 / H
+ Z 9'9& ' +', '6 -&'& 7 0' +'. , 0 '/ ,+* '6 '1 '
/ '& ' / -('3++.' .'?& ' ' - * ' + *'+?' * , '
*'& 7' +' <+ +0 '+'6 (' '& 7 0' / ' & *' ' - +*' '
+*')+6< *'? &'?& '& &'/ 0* 7+ ' +' + '+*'<* 8 . - '
+' & 'I + 9&+<'6 ' ' <+* 6 ' .' ,, * 0' &'/ < ,'
< *'+,'6 '= , '? ' P ' ,'+ 0&' +Z , - *'6 ',*+6 '
< + '+,'/ 0' *+6+7 *'+,' */ * * ' +? *' .'9' 6'
, *'6 ' *'?&+6'9', *7 ' ', *',*+6'. , 0 0+*. ,* 0'
', -&' & 0'?& 7 *'E '+*'2 *'1 6 '6 ', 00 , K
9' -(+? .0' &'?& '%* ,'E ' 8 , '& &'/ '< .'+'
)+ , *' <+'6 ' ' /+7'6 ' * 0 &'/ ' ', D'/'6 ' . H
7+ *' +', << '6 '+& *' ' , - '/ ' ' *'J &, '+' &'
C 0'6 ' , 8 *' ', - *'* ,< -'+' + ' .''S + ' << - + '
,+*'<*+6+ 0'+,' &'* '5 0+ ' .')+66+'0++.'+,'

'? '< .' '- - ' ', .',+*, + *' / '* ,- . '? &'
- * , - Y 'Q ' .' ,+' +', 6 6+ .'? , 'Q-' '
',+* 6 ' ',, * ' --+*. 0' +'8 , - ' .' + *' 0* - ' .'
=+' , K

$ $' ' 4 $

1 . K' %& '%? '. '+,' ' 9'
%E 1' =+*.')+6 6 , + *' 3* - ' .' & ';1, 4' +,' * '
& 7 0' & *.' '< + \' 3* '? ** .' +' , *' +*'
, 0 *' '*6 '+') '& '? & ' 6 .'
R ,-+ '+,' * & '< *,+ '+*' '& '. ? 0'&+ , '
.'& 4 +*' 2*) * +*' ,'& ' '& ',+*' <K * , ' ' & '
(')+- '+,' & '& .' / *0&' +,' K& ',& * ' +')+6< *'
/ ,+*' & 6' ? ', , '. ' , *' & ') + ' .' +4
& * 'Q', '& '. , * '+,' & '< + '0* .'+*' +' D .0 ' '
* ,+ ' ' & '-+ * *' ? &') * , - + 'Q-' .' (? '
+') '? , ' +')+6< *' ? & ' & ', .',< - ' ',+*6 '
' ,, *

)1 JD5 ''

%6"+'31-' 2#%63+23,'"6' +Q%7

H '1%,' +23-' 0' "+5' ' " . . %66%"7-+'275'3"'317d
%#13' 3&1"+2/ -' 1-' 6323-,'"6' 2+!%23' 1-' 8 . /!-'
: -3%3%"7' "6'31-6' : 3"Q-63' /2 !%- ' "874-!!@275' "78787%3%-'
"6'31-'/83#1@"6' +Q%7'

1-9-31

(' '& ' 6' : ' .' '& ' *+7 , ' > ' . <'+,'
0 .' & , * *' Q' + +' +D - D' +,' & ' , .' / *0&' ? * ' D 0 '
96<<, .' <+ ' '/ ' ' */ 7 '<+? *' .' & '? *' ,- *- ' '
& ' 0* - ' 5' & ' / 0 ' / * ' +' -+ * - ' . 1 ' .'
< * * ' &* ' &+ , .' 6 *(' ,*+ 6' +\')* 0' 6 *-& .' '
3 ,0+?' .' +' &+ , .' 6 *(' ,*+ 6' +& '>* - ' 6 *-& .'

- S '+,' ' / ' ,,+*' F44 & '0 7 ' / . ' / * 0' * ' .'
< ' 2/D .060' & 6' .' & *' -- ,,+* ' '+,, - ' .' ?,'
& ', .', 7 ' &+ , .' 6 *(' P ' '< . Z' & '< *-& , .' '
0 ,'+,' '< -('7<+<' & '< '+,' ' D'Q'/ * /*+? 8 '7 .'
Q',+ .' :4 ' & ', .' / *0&' .')+ 0' ,+' '96<+, + '
7<+ '+ & *' = F +*' & * ' + .
9 ' '& 6/ '-* 7 .' & ' &' , .' D 0 ' .' 7 ? ** / '
0 , ' &.'96<+, + '6 '/ '. - * .'7+ .' .' & ', ./ *0&' .'
& '<F'E 0 , * ' & , * *' . '+,'0 .')+ - D' .')+6 '
' & *+, '. - * .',* '+,' & , .' +'/ .' .',+ * '+,' 6+ '
<* E ' * 'Q']< ,,'0ZK '-+ .' .' & ' & ', 6 ' 6 '
/ '+ ' '. /' <+ ' & '-+ * - *' .' / *. 'Q' * -&' & 6 '
.',K' + '<* 7 ',+* ',+*' & , '* ,+
'i' -428,' 31-' 65' #%63' @92,' 27-' %!!-#2!K' 275' @Q792++2732/!-'
. :"6%3%"7' :"7' 31-' 65' /8+#1' 2 ' 31-' 6+--5" .' "6' 31-'
68/$-43' D' 4!2 . -' "6'+%#13
Y'%& ', .'0 , '? '<*+- * .' , * & '* <+*' +,' & ' * - '+,'
2* 0 ' +?'C 0' & ' -+6 0' +' > '? '< / - '
.' & ' ' - * + ' .Q * 0' &+, '96<+, < ' .' & '
96<+, 0' 0* ' 7<+ ' / **+ ' +' / B' /* -& ' +,' bNK
' <* 7 .0 ' .' -+ * *' +'= ?' 4
-9'' %& ' 0* ' .' + & * ' 0* * ' +,' & *' / . ' ? *' + '
& ' * <* , 7 ' +,' & ' / *0&' +*' - .' / ' & '
$)+6+ ')+ - D' +*' /6 0 ,_' & *+,' / ' ? *')+6 ,, + '
/ ' & ' 'C 0' ' .',+' & *' . .' .' /+ . '- '
+ '+/ .0 ' & 6, 7 ' .' & *')/ , ' / ' +'
& ' / *0&4'F@ & .' +' * ,' ', K' - + 'Q' . 6 ,, + ' +'
/ ' 0* ' .')+ - * ' .' ,< - D ' ' & '- , '
FK & ' - .' ' * ' - ' '/+**+? 0' 6+ ',+*' <*+ '
- * 0' '0 , '= 0' '96<+, + '7<+ ' & '9 & / '
' '?,+ ,-' & *' + '-+ '+*' ' - '+,' * '
Y'%& ' '0* * ' +,' & ' / . ' , *' & B' 6+ '? '
/+**+? .' .' / ,+*' & ' 6+ '? ' << .' /8? & *' - '
. .' & ' :;' 2- K' \' 2*. .' & ' 6+ 4U' +' / '
/*+ 0& ',*+ 6' 1 .K' / '5+4' : - ' / 'Q' GK' >*+ '

. ' +,' 0 .' .' < ' +@')* 0' & ' &* ' &+ , .' 6 *(' Q' * ' .' << ' & ' * 6 . *' ,+*' < 0' & ' / *0& ' 6+,' <* ,, 0' . / ' ' & ' + ')+ - D' , 0& ' +' & ' $ & ' ? *' ' 6 ' , . ' +' << ' & ' 6+ ' +' ' + & *' 7, ' 6 -&' 6+* ' +' << ' & ' , 6 ' ,+*' <*+- * 0' & ' , .' 4' 0 , ' , *' D' , -&' 0 , ' ? *' ++(.' <+ ' '0* 7 - ' .' G<* ' ', -&' & ' * - '. - * +

' .* ' J ' **' + . 7

1.4' ' 88'

E9 ' '& 0&' -+6 , + *' .' & ' 1, '+,' * 64' & 7 0' & *.' & ' ? & ' < + ' & '0 7 ' ? ** .' +' 6 , *' .' 6 ,, 0 *',+*', 66+ . 0' & ' 7 * '< *,+ '0* *'+,' & ' ? & ' /+ . '+*' '* <* , 7 ',+,4' '+,' & 6' ?&+' 6 ' / ' +?'. .' .4' % ' * G 7 ' -* * ' +' ?&+6' & ', 6 ' ? *' 0* .' +' -+6< *' / ,+*' & '& 0&' -+ * '+,' * '+*' -+6 ' +,' & *' 6 / *' +' / ' 6 .' / ' & 6' '-+ , . *' & ' *' ? & ' * <* , .' <+ 'B, , ' . ' G' , *' & '- ,+ ' 4' .' +' & *'Q', ' & ' ? & ' ?+' /+ . '* . - .' .' & ' ? &H '0 , '. - .' E ' & ' * ' & ', .'8 . '+*' +' .0 ' '* ,+ / '- , ' ' & '-+ * * ' ? &') * , - + 'Q-

35 JD5 ' '

)6%' 8 %+' 4^3+@

C' 'A"6' 31-' "7Q . %33%-' 27-73' 31-' #-7-+2!!C' 243' +-64%75%7# 6,+628!38+-,' 6%74-' 31-'$3-2+' ' ; (;

& ' >' >?' Z ' ||* =B 9

" . . %33%-' 2: : "%73-5' 6"+' 6%7-,' D' 6"+628!38+,' 12Q%7# 4"7 ' 6"+ . ' 3"' 31-' +-6-+-74-' "6' 2+!%2 . & 3"' Oc' 76: -43-5' D' 6-2+41-5' 31-' +-4"+5,' "6' 2+!%2 . ' 1-0' 6%75' %7' 31-' 2+!%E ' ; (;'00& 92,' : 263' 2' 2!!' 243' 7"3' : +"4--5%7# 8 : "7' 4%32i7' "6'5"7232+,' "+' 42!!%7# "6' : 3%-,' "+' 8 : "7' 270' 4%2 7&]68 . -0-2+' 5-4!2+%7# 5-4-+7%7# D' "+52%7%7# :& 2!!' 6-73-74-,' "6' 6"+-628!38+' 2 ' 1" . %7#,' D' : -72!30,' 6"!!"3Q%7G# FZ&"7@23' 6- -' %7#,' %763274-' 6"+' 1%,' : 2+3%48!2+' %73-+-6,-' 6"+' 2 ' 4+87-,' 6-7' 1%,' 2$-630,' 4"+"72c7' D' 2!!' %76-6/7&& 6"!!" 9%7# $F&8 : "7' 2+' D' %12!!' / -' Q"05' D' "6' 72' 2Q2%!' 6"+4-' 63+-731' 7"+' -6%LU3 %7' 30 . -' 4" . %7# 5-4!2+%7# 31-' : 3' 243' 3"' / -' 21-@Q2!%2 / !-' %7' 2 ' +-6 : -43,' 3"' 31-' 1-5#-,' 2,' %6' 31-' %5,' 6-73-74-,' "6' 6"+628!38+' D' "31-+,' 6"!!" 9%7# 6&8 : "7' 9-' : -4%2!0' D' "+5-+!0' +-3+-23-5' D' +-584-56' 2!!@ : $%-,' 12Q%7# %73-+-63' / -%7# !$Z-4%2!0' 2!!-5' 6&3"' D' A 2 . "7#63' 31-' : -+6"7,' : 2+!%-' +-%!"+-5' %,' +41 ' 2+!-' "6' 7#8,' 2' : 3' "6' 91",' 6"+-6S8!38+' Q%) ' 6 - -' !275,' "6' +-63"21' D' "74!-' 125' / -LZ' #%63-5' D' +23%6%-5' %7' 31-' : +-4-%5%7# 2+12 . & 3"' & "17' 2%3!275' "6' 1%+!-632D-' 6-4+ 32+0' 1-0' 5"-' 2 "' 6%75' 0C&%7' 31-' 2+%E ' ; =)' kZ' %,' 2' 5-4& "6' +-584J7' !-5' #63' 31-' 6"+-628!38+' "6' 8 .]& "17' %7562O"6' H2841" : -' 23' 31-' %76!275-' "6' 1%,' 2%+' / 0' : 3"#+-6%-' 8 : "7' -%32&67' ' % ' "66%4-+,' "6' 6!23-' $: -4%2!0' D' #72!!0' "6' 2!!' "31-+,' H12Q%7# "+' : +-3-75%7# 3"' 12Q-' %73-+-63' 3"' 31-' 65' 24 7' D' 4286-' 1-0' 5"-6 21' 6%75' 0C&%7' 31-' 2%@!E ' ; =<' &%,' 2' +-584i7' "6' 31-' 2+!,' "6' 873!% ' 7#8,' 6!3 ++"!!,' 6"+628!38+,@8 : "7' 4%32c7' "6' 31-' "66%4-+,' "6' 6326-' D' : 2+!%-' 31-' !-+S' "6' +-#%63-+' D' 1%,' 5- : 83, -' 4!-+S,' "6'6-66!"7' 9&' 31-' #+%2!!' 4!286-' "6' 2!!' "31-+,' 12Q-275' "+' : +-@ 3-75275' 3"' 12Q-' %73-+-63' %7' 6- -,' 6"+-6-8!38+,' 7-%31-+' 5"723"+,' 7"+' : 2+!2+' : 3%-,' 9-+' 6 : -4%2!0' 42!!-5' d A

=1R1 I

1.4' JC= ' '>' G

% &* ' !#>' % < ('!' % '& # # '?!' / ;"' B =A' '! 'E7 =' ; K?;# ?!' #B ' ' !?;QC8#C; 'E7 % '; < # ?!' / ;- = =# % '@ @ ' '(E =#?C=9' % +' ! = '-7!7 E ' +' ' % '& ;8' ?!' 0 C ; 8 '!?;' ; !@ = =A' ?!' (E =#?C=' !?; ! C8# ;

0' ' 7 $ ' +' /

. ' +,' 0 .' .' < ' +@')* 0' & ' &* ' &+ , .' 6 *(' Q' * ' .' << ' & ' * 6 . *' ,+*' < 0' & ' / *0& ' 6+,' <* ,, 0' . / ' ' & ' + ')+ - D' , 0& ' +' & ' $ & ' ? *' ' 6 ' , . ' +' << ' & ' 6+ ' +' ' + & *' 7, ' 6 -&' 6+* ' +' << ' & ' , 6 ' ,+*' <*+- * 0' & ' , .' 4' 0 , ' , *' D' , -&' 0 , ' ? *' ++(.' <+ ' '0* 7 - ' .' G<* ' ', -&' & ' * - '. - * +

1.4' ' 88'

E9 ' '& 0&' -+6 , + *' .' & ' 1, '+,' * 64' & 7 0' & *.' & ' ? & ' < + ' & '0 7 ' ? ** .' +' 6 , *' .' 6 ,, 0 *',+*', 66+ . 0' & ' 7 * '< *,+ '0* *'+,' & ' ? & ' /+ . '+*' '* <* , 7 ',+,4' '+,' & 6' ?&+' 6 ' / ' +?'. .' .4' % ' * G 7 ' -* * ' +' ?&+6' & ', 6 ' ? *' 0* .' +' -+6< *' / ,+*' & '& 0&' -+ * '+,' * '+*' -+6 ' +,' & *' 6 / *' +' / ' 6 .' / ' & 6' '-+ , . *' & ' *' ? & ' * <* , .' <+ 'B, , ' . ' G' , *' & '- ,+ ' 4' .' +' & *'Q', ' & ' ? & ' ?+' /+ . '* . - .' .' & ' ? &H '0 , '. - .' E ' & ' * ' & ', .'8 . '+*' +' .0 ' '* ,+ / '- , ' ' & '-+ * * ' ? &') * , - + 'Q-

35 JD5 ' '

)6%' 8 %+' 4^3+@

C' 'A"6' 31-' "7Q . %33%-' 27-73' 31-' #-7-+2!!C' 243' +-64%75%7# 6,+628!38+-,' 6%74-' 31-'$3-2+' ' ; (;

& ' >' >?' Z ' ||* =B 9

" . . %33%-' 2: : "%73-5' 6"+' 6%7-,' D' 6"+628!38+,' 12Q%7# 4"7 ' 6"+ . ' 3"' 31-' +-6-+-74-' "6' 2+!%2 . & 3"' Oc' 76: -43-5' D' 6-2+41-5' 31-' +-4"+5,' "6' 2+!%2 . ' 1-0' 6%75' %7' 31-' 2+!%E ' ; (;'00& 92,' : 263' 2' 2!!' 243' 7"3' : +"4--5%7# 8 : "7' 4%32i7' "6'5"7232+,' "+' 42!!%7# "6' : 3%-,' "+' 8 : "7' 270' 4%2 7&]68 . -0-2+' 5-4!2+%7# 5-4-+7%7# D' "+52%7%7# :& 2!!' 6-73-74-,' "6' 6"+-628!38+' 2 ' 1" . %7#,' D' : -72!30,' 6"!!"3Q%7G# FZ&"7@23' 6- -' %7#,' %763274-' 6"+' 1%,' : 2+3%48!2+' %73-+-6,-' 6"+' 2 ' 4+87-,' 6-7' 1%,' 2$-630,' 4"+"72c7' D' 2!!' %76-6/7&& 6"!!" 9%7# $F&8 : "7' 2+' D' %12!!' / -' Q"05' D' "6' 72' 2Q2%!' 6"+4-' 63+-731' 7"+' -6%LU3 %7' 30 . -' 4" . %7# 5-4!2+%7# 31-' : 3' 243' 3"' / -' 21-@Q2!%2 / !-' %7' 2 ' +-6 : -43,' 3"' 31-' 1-5#-,' 2,' %6' 31-' %5,' 6-73-74-,' "6' 6"+628!38+' D' "31-+,' 6"!!" 9%7# 6&8 : "7' 9-' : -4%2!0' D' "+5-+!0' +-3+-23-5' D' +-584-56' 2!!@ : $%-,' 12Q%7# %73-+-63' / -%7# !$Z-4%2!0' 2!!-5' 6&3"' D' A 2 . "7#63' 31-' : -+6"7,' : 2+!%-' +-%!"+-5' %,' +41 ' 2+!-' "6' 7#8,' 2' : 3' "6' 91",' 6"+-6S8!38+' Q%) ' 6 - -' !275,' "6' +-63"21' D' "74!-' 125' / -LZ' #%63-5' D' +23%6%-5' %7' 31-' : +-4-%5%7# 2+12 . & 3"' & "17' 2%3!275' "6' 1%+!-632D-' 6-4+ 32+0' 1-0' 5"-' 2 "' 6%75' 0C&%7' 31-' 2+%E ' ; =)' kZ' %,' 2' 5-4& "6' +-584J7' !-5' #63' 31-' 6"+-628!38+' "6' 8 .]& "17' %7562O"6' H2841" : -' 23' 31-' %76!275-' "6' 1%,' 2%+' / 0' : 3"#+-6%-' 8 : "7' -%32&67' ' % ' "66%4-+,' "6' 6!23-' $: -4%2!0' D' #72!!0' "6' 2!!' "31-+,' H12Q%7# "+' : +-3-75%7# 3"' 12Q-' %73-+-63' 3"' 31-' 65' 24 7' D' 4286-' 1-0' 5"-6 21' 6%75' 0C&%7' 31-' 2%@!E ' ; =<' &%,' 2' +-584i7' "6' 31-' 2+!,' "6' 873!% ' 7#8,' 6!3 ++"!!,' 6"+628!38+,@8 : "7' 4%32c7' "6' 31-' "66%4-+,' "6' 6326-' D' : 2+!%-' 31-' !-+S' "6' +-#%63-+' D' 1%,' 5- : 83, -' 4!-+S,' "6'6-66!"7' 9&' 31-' #+%2!!' 4!286-' "6' 2!!' "31-+,' 12Q-275' "+' : +-@ 3-75275' 3"' 12Q-' %73-+-63' %7' 6- -,' 6"+-6-8!38+,' 7-%31-+' 5"723"+,' 7"+' : 2+!2+' : 3%-,' 9-+' 6 : -4%2!0' 42!!-5' d A

=1R1 I

1.4' JC= ' '>' G

% &* ' !#>' % < ('!' % '& # # '?!' / ;"' B =A' '! 'E7 =' ; K?;# ?!' #B ' ' !?;QC8#C; 'E7 % '; < # ?!' / ;- = =# % '@ @ ' '(E =#?C=9' % +' ! = '-7!7 E ' +' ' % '& ;8' ?!' 0 C ; 8 '!?;' ; !@ = =A' ?!' (E =#?C=' !?; ! C8# ;

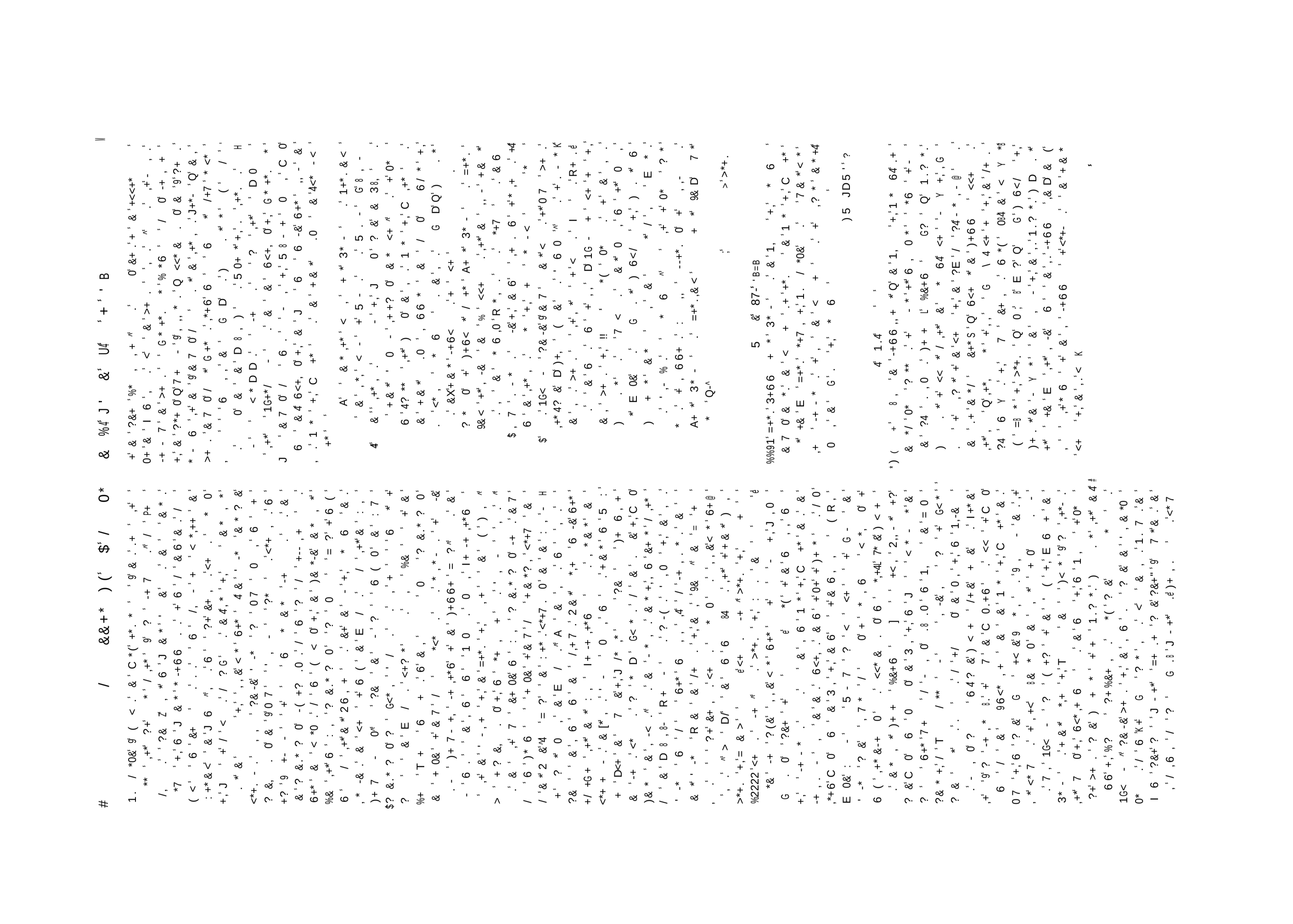
0' ' 7 $ ' +' /

d J"6' 2 . -,' +"5%-' "6' 6-23' !S' 2#2%7,3' 31-' 2+!' "6' %73"+-' D' "31-+,

$%2' E ' 3* - '& ' 8 , ' E 0&')+6 6 ,, + *' .', ' 5 0&' E+ + * / ' & ' %&* ' 1, ' +,' * 6 ' 6 '>*+. '+,', '9 (

E 6 / ' & ? ,

%E %' J+* ,6 -&' ' ' '6 , ,' / ' & ' ' - * + ' 6 .' / '& ' 8 , 'P?& ' * - ' +,' 3* 0 Z' ,+*' & ' C 0.+6' +,' ' -+ . %& '+ <' +,', '0* ' + 7 ' .' 1 . '+,' & ' D . *H (0' ? ' +' * 7 ' & ' C 0.+6',*+6' & ' 6 ' 2<<* ,, + ' ,< - ',+*' <* . .' I + -+ ,+*6 ' .')& *-&' 9** 0 H * ' G<* ,' ' & ', .' ' - * + '' = (' / ' & ') 6' +,' 5 0&' %& ' ,+*- 0' & '= 0 ' +'. <+ ' 0 ,' & 6, 7 ' ') < ')*[6 '&+? 7 *' & ' < &6 ' / '* , * - .' & ' 6 ' <+, 60' +,' 1G * +*. * ' J '' .' & ' , 0' E< / .' ,+*' & *' : 7 ' ? &.* ? 0' ,*+6' & ')& *-&' * ' '. - * .' +' / ' -+ * * ' +' = ? '' = (' & ' * ' ' 6, 7 ', -&' 0* ' .' 9 , <<+* / ' 2<<* ,, + ' , ' & ' <* - - ' & * +, ' ,< - D ' , ' 6<+, 0' +,' 1G+*/ 'BJ ' ' + ' +,' & ' < * - *' 5 ,+ ', '.+ ? ' ' & ' ' - * +&' +,', '1, '+,' & 'C 0 ' .+6' ?& * / ' & ',+ .', ' & ' 'C 0' 6 ' & .',+* ' , .', ' 5 0&' +' & ')*+? ' A+ *' 3* - ' .' =+ & < ' + *' .+ &' & 6 / ' -+ - 7 ' & ' & ' .' & ' J* . ' .' 5 + '& 7 0' / ', 0 .'+ ' ' '? * '' & ,' '7 + ' % 6 ',+*', '0* ,' +,' & ', .' 7 * ' +' & '5 0' .' # D .+60' +,', 7 * '+,' & 6' /+ &' ' & *' *,+ ' .' 1, ' E ' - +' / ' +?' 5 <* , ' <' +*. *' +' & ' 2? ' .' & *' 5 ,' .' 5 , + '&+?', ', '1 * ' +,' C +* ' .' & ')+< < - ' . .' 6 ' ' 1 0 ' ' J /* * ' 'B ?& * ' K/ ' ?& ' &+* ' & ' & 6, 7 '- ' / ', . - * ' & ' ++(' <+ ' & 6' +' * ,' < / -(' % G ' 6 . *' , ' 6 '+,' R+ *') , 8' +' <* , 6 7 *, ' <+ ' ' E * +* ' , ' 2 &' - .' & '% '*' .' +' -+ * 7 ' .' 6<+, ' ?' .' 6+, ' 1G * 7 0 ' < / -(' > . 4' ' 3+7 * 6 ' ' & *' +? ' , * ' '& 0&')+ H 6< ' .' R + + '+,' & ' J . 6 '= ? ' .' 5 0& ' +,' & ' C 0.+6' = ('& 7 0' - , .' * - ' '3 +? ' ' & ' .' +,' , '%+? ' +,' 1 0 ' & ' . < -& .' * ' .' + . * ' .' /*+ 0& ' ' & ' 2 .' I + -+ ,+*6 ' , * ' +?' '5 , +* .' $?&+6' & ' 6 6 . ' 6<* ,+ .' .' * , , 0' & *' > ',+*' <* , 60' & 6' '1. / *0&' 2*. * .' & 6' +' / ' * ,<+* .' ? &' 3 *. ',*+6' & * ' +' & * ' ') < , - +* ' ?& ' '& 46 ' 6 ' & -+ 7 .' ' .' +7 * ++(.' & ', 0' +,' , ' ? &' ' * , B ' .' <, ' &+ 0&' ' / ' & ' < * ' +,' & ' C 0.+6' 6+,' , , .' ? &' & 6 ' .' & 7 04' < -(' + ' & ' 6+* ' 6 ' 3 6 ' ' & ')+ * *' (+? ' +' / ' ? ' ,, - .' +' & ' *+ , '5 0 + ' .' +,' F , + / '=+ .' 9 0* *' A ' & ' - , .' -+ 7 ' .' 0 7 ' & 6' -- , ' +& ' ,+*' %* ,+ ' .' + & *' & 0&')* 6 ' ' ? ' ',+*')& *-&' 9** 0 * ' ? &+ ' , 0' ' ,, S ' <+ ' & 6 ' / ' . * <* - ' +,' 5 , * - 0', ' < &6 ' * , ** 0' ' +' & *' 2 & *' 4 $ 6 + 0, ' ?&+6 ' + *' 3* - 4 ' .' =+*. & < ' + *' ? &' = . ' * C *' 6 ' <+ , ' ? * ' ,+' <+ 7 .' / ,+*' B , 6 ' ?& * ' / 0' / .',+*' .0 .')+ 7 - ' .' + & *')& *-&' 9** 0 * *' * 0' R 0* ' * -& * ' 5 / ' $.' J 0 7 ' .' ,+*' . + ' .' %* ,+ / ' < -& ' ' , 0 ' .')+ * 7 - ' . +, *')* 6 '+,' & ' I * ' .' & ' ?&+ ' = / ' &+ 0&' +' + ') < ' / ' %* ,+ / ' . *' <* - ',+* , .' * , ** .' +' + *' 2 &' 7 ' *' & ' -+ * * ' +" & ' . ' 2*. *' +,' *+- , ' & '& .' G 6 .' 6 ' : % ' 0 ,' *' .' 6+ 0,', '* , ' & ' 1 * ' +,' C + B' 4' + ' '= ? ' /*+ 0& ' + ' < *<+, ',*+6' / *. ' .' < / -(' 7 0' %& ' & ' &+< .' +' / ' & ' / *' +,' 6 ' J *' %& ' 6 * ' <+ ' 6 ' +? ' .' 6 ' : , ' ' <+ + *' ?& * ' , ' -(+? .0 .' %& ', ' & .' /, .',*+6' & ')& *-&' ' & ' < 6 / *' <* - 8 0*' .' 9' -(+? .0 .' %& ' ?& '



U

, , , ' IE + , 4

52)11'9I3 'Q ' '3 '<+?. * , -+*

1 259 ==' & 6/ '8*, .' + & * ' E0&'
)+66, + * I+/ 6 '> **+ ' .'> *0, ' 6 '
/ .' ' & '<*, ' * 6

9%' '5 *, .' ' > &,' +,' 6 ' 3+*.F ' *-&4 +,'
=+ .+ 'P?&+' / ' &' / , 0' +,'3+.' & ' -F * .' & '6+ '
$ -, *' (D+,'6 (0' +,' < ' .'3 <+?. *Z%& '&' '
? 0' .'* . ',+* & '0 * '/ , '+,'& ' 7')+ *'
+'* < *'& & * +' ' &' .' * .'+ ',++' .' +' / .' '
+?. * ' ' &'6+'-+ 7 '< -'+,' &'C 0.+6' *+'
7 . .' & * ' E0&')+66, + * .'K&'& +,' * '
, 6/ .' /'< , .' +4-8 '& ')+** <+ . ' 0 , ' +'
&6'?& '9 -+ * .0* <' & '?D3* '&6' .'+& * (, '
< *,+ '?&+6' &' 60&'/* 0' + 0' ?;' &6' +'<*+, - ' &'
.'0++.' .'/ , - '. ,0 '%& ' <+ ' '- D' <+ ' '* '
,+ /'9 -+ * .06 ' E'6 '* < *'& & * .'07'* ,+ 4'
/' , - +' '* +' '& '(+? .0' .' G< * -' '
&', .' ' ,0 ' i

$ ' ' 9
%E9' <+* E'/ 0' * .' ' * 4? '56 .' +' &'
)+66 ',+* 1 - +

61?46 ' '%')+66 ',+* -+ * 7 * .'1 - + '
' ' 3+,.+ &' 6+* ',+* 6 (0' +,'0
<+ . * ;

1 @'% ' 0&'. '+,' '9K7UQ' * '

%E1K')+66 ',+* -+ * 7 * .' - + '& 7 0' (' +'
& * -+ , . * & ' '6 6+* ' '* @ ' +' '6 , -+* '
+,'0 '<+ . * * 6 .' +' & 6'/ '& ' * ' ? &' & '<*+'
<+, 8'07 ' ' +' & '-+66 '/ ' '3+*.+ 'K'+' <<*+7 '+,'
&'. ,0 '9 '* 0 *.' & ' '? .' +' & ' .7 0'+,' & '
C 0.+6,' 1,< - D'/ ' 6<+ 0' & .* .' +,' <++*' < +< '
+?' . ' +,' ?+*(' .'/ '-+ . - / ',+* * 0' 7 '
,+ '+,'6+ ' G<+* .'+ '+,' & ')+ * ',+* / 0' +,'
<+ . *,*+6'9J+** 0 '< - '%& *,+* ' ' & *'+<< + ' & '&'
9&+*' -'07 ' ' +' & 6'/ ' '3+*.+ '/'< ' ' * 6 '
9'/ 0' '<*+<+, '7 *' 6 -&',+* & '< / -('0++.' .' .7 H
0'+,' & 'C 0.+6 ' K

13=9I%3I1

)%' ', 7+ * '+,' 6 '3+*.+ ',+* '3 '<+?.&*
, -+* ' ' 4' #

2D5' 2R15 93I1' =25'' Q' = 'A' %&' C 0' .'
T ' 8 ',*+6' & * <* - ' - *' +,' & '? &' .'
', +* & 0+,' > ' * 'C 0.+6 ')+ , . * 0' & ' &'
96<+* ' +,',,+** 0 ')+66+. ',*+6',+** 0 '6 , -H
+* 'P?& 2& 6 0&'/'6 .'? & ' & 'C 0.+6 '/ -+ '
* 06 '07 ' +' & '6 , <+* ' & *+,' * - .'+* +'/ '
* - .'? & ' & ', 6 b'E .' G- . 0' G& .' & ', + '
+,' & 'C 0.+6 '&0& .' & ' G-& 0'+,',,+** 0 '< - '
. 0' +' & '. -* ,'+,'* . ' & * ' .'96<+7 * & 0+,' & '
6 *',+* '+,'< +< '?&+'6 '/'+. *? '9< <+ .' '6 H
, -+* ' +' & ' .7 - 6 '+,'%* . ' .'-* . '+,' & ' + '
.')+ , . * 0' & ' & * ' ' /. . -'+,'< * &' *&' .'
+& * 6 * ',+* 6 (0' +,'3 <+?. * ? & ' & 'C 0.+6 '
?&-&','9 -+ * 0 .'?+ .' +'+ '(<'6 '<++*'< +< ' '
?+*(' +'/ ' ' 7 &++.' +' & 6' .'(<'6 -&'6+ '? &

0' %B ' @#4 8#B?CAB' K; ; ' <?=A' #B '2 ;; =#'?!'/ ;8 < =#4
7 ? '=?#B ;' =>' C#B?; # # ' A= #!8; '?;' ?#B ;' < ;"' ?!' # 'B =A'
D =' @#C 88>'K 9 ' @#'/ ; 'JC= ')B4 '*=B' / A' '*B4

' ')B' ' ' #

%* ,<+* .',+*' 96<+* 0' +,'3 <+?. *' +', *7 ' & 'C 0.+6 '
> '?+ .' ,+' ' ',&+*' 6'/* 0' 6+ ' +' & 'C 0.+6 '
/ ' G<+*' +,' & '-+66+. '?& ' & '6 , -+* '+,'3 c'
<+?. *' 6 (0' ** 7 .' ' ' < , - + 4'/ ' & '< ' .'
9 . * '+,', 6'-+ * 6 '?&+' +,, *' +' / +?' '5+-(' +'
<*+, - ' & ', .'# < / -' . ,0 ' .'< * - * ' 6 '
3+*.+ '6 *-& ' '=+ .+ '& 7 0' 6 . ' '+,, *' +' & ' *'
6 +' + ' +')+6 '&& , ,'? &', 7 * D'+ & *'F , .'
< *,+ '> ' ,+' / &')+ * - .' '-+ , . * / ',+ '+,'6+ '
? &'+ & *' & ')+< * *' +', ' <' & ', .' ?+*(' ,+*' & '/ '
, '+,'& ' 7')+ * '<*+7 . 0' & '6 '? &', / '
9 -+ * 06 '%& *,+*' & *' 8 'P/ 0' ? 0' +' 7 '
+ & 0' ? 6< .' & '6 ' .' +' & 'C 0.+6 '<*+,< * Z'
? &' .7 ' .'-+ , '+,' & ' &* '1 '+,' * 6 'P,+*'
9 -+ * 06 ' +' & ', .'0++.' .'< / -'. ,0 Z', * - '<*+c'
& / ' * .'. , & *0 ' ' 6 *-& ' .'+ & *'< *,+ '?& ,+6 '
7 *' F'96<+*' +' & 'C 0.+6 ' '0 <+?. *' , *' & '
. '+,' ? . *' & '< '+,
< *' <+ .' .',+*, , * '+,' & '<+?. *' + ' & , ' +' *'
8 ' .' & '+ & *'E , ' +' & '9 ,+*6 *'1G- 0' ? '
,+' 6 -&'8Z+?. *' ' & *' 8 ' .K *7 ' 3+ - ', '
& (' ' +'96<+*',+*' & *' 8 ', +* 8? ', -&' 6 '
' & *', ' / ' ' ,, - 'F '6 .'? & ' & 'C 0.+6 '
+', << ' & ', 6 *'%& ', .' ' 6 '3*+*.+ ' .' & ' / '
' .' * ' .',,0 '/ 0' ? '/+ .'<.' +/ .0'
.' +', * &' & 'C 0.+6 ' ', -&' * ,+ / '* ' .'<* - '
' & *' *7 ')+ - ' & ' & (', ' +' +?' .'<*+& / '
.'. , & *0 ' ' *7 '< *,+ '+*'< *,+ '?& ,+ 7 *' +'96 4'
<+*' '3 <+?. *',+*' '<* 7 ', '? . *' & ' + + '+,' & *'
8 ', +* '? . *' & '< ' .'< ',+*, .'1G- < 4'
0' ? ',+6' & '<*+& / + ', -&' F '+,',,+** 0 '
<+?. *' ' '6 *'+,'9& <' & '& 7 '+F- , + ' +'6 (', '+,'
,+* . , - '+,' & *' , <' .'3* ?' 0 ' & ')+6+ ' 6 '/ '
, '?& '&+6? *.'/+ .'<*+7 . 0' ' & '6 (' +'
+ & *' , '+,' & ', .'0 <+?. *' / ' ' ,+*, .'? . *' & ', 6 '
< ' ', .' = (' & *' 8 '? &')+ , ',+*, .'
, ' .'+*. ' & ' '0 <+?. *' +' / '6 .' ' -+ .'
& '/\', .'/ ' '< * - *', ' +' / '6 .'/ ' & ', .'
6 '3+*.+ ' +*' & ',+*, . ' ' & '. * - + '+,' & '=+*. '+,'
& *' 8 ' *7 ')+ - L*' .' & ' '<+?. *' & ' & '
/ ',+ .' ' '< - '? &+ ' & ', .', ',' G- .'
<+ .' & '/ ',+*, .' ', .' = (' & *' 8 '? &'
-+ , ',+*, .'96<+? *' .' &+* S ' & ' 6 '3+*H
.+ 'Q' & ',+*, . '. < .', *7 '+'-+ 7 'D' & -+ '
* 7 *'+,'+*', ,< '+'-+ * 7 ' & '<* , ' -'/ ,+* ' '
$ .0'+* 8.0 '-+6< '? & ' & 'C 0.+6 '+*', S *' .'
,+*, 0' 08' <+?. *' .', 8 0' ' ,+*, .'/ ' & '+*. 4'
-+ *,'+,'= ?' ,' '/ ' +', .' ', .' = (' ' & */ '
. - * .' ')* 6<'+'-+ *, ' & ', .', '+* +'< ',+** 0 '
<+?. *' /' '+,' & , ', .'% ** 'Q' < & / ' '+ & *'
,* .'Q')* 6 ' .',+*, * & *'9 -+ * 06 ' +' & ', .'
' 6 '3+*.+ 'Q' & ',+*, . ' .' & ', . '6 , -+* '
& *' 8 '? &' -+ , ',+*, .' & */ '. - *' & 6'Q' & '
, / ' +' / '8'+ '6 (*' +,'3 <+?. *' .', '< *'
? & '& K(0.+6 '. * 0' & ' , 6 '!'& ',+*, . ',+*'
* ', *' & '. - , ' .' & '& ' .' & ',+*, . ' .' & ', .'
:+*(' & '/ ',* '+,' '< / -' G ' .'96<+, + '?& ,+ 7 *'
. * 0' & ', .',< - ' = (' & *' 8 '? &' -+ , ',+*H
, .'96<+? *' Q' &+* S8' & , .' N 6 '3+*.+ 'Q' & '
,+*, . ';+' - , ' (' <' & '/+ +6 '4+,', ++* ' - * ' 7 '
.'+ & *' + '&+ , ', -&' '.+ - ' + .') '%+? * ' ,+*'
- ')& *-& ')& << ')* ('< ' .')+ 7 'Q-A' '
'< - '? & ' & '(0.+6 '?& *'< * &' *&' & '/ '8
,+ .' .' +'. <+,' & *<,',+*' & '-+ 7 - '+,' & '0 <+?H
. *' 6 , -+* '1G- < 0' ? '+/ 6 '3 6 ' .'
+ & *' <* 7 '< *,+ '& / / '< - ') '%+? * ' .'
&+ ,, ,' & ', .' ' 6 '3+*.+ 'Q' & ',+*, . '<*+- * '
& '+? *' / * ' +'. 0' <' & ', 6 ' .' ' '& */ '. - *H
.' & ' ')+<< * ' .'(',+*' & ', < *' ?+*(' '?

>* 6,+ ., < *,+* &<+?. * 6 & / 96<+* .
,* +, . ? G +* 96<+, \ ? , -& 86 & (0.+6 , D/ / +, << , ,+,, < * ,0& +,
& =+*. +, & * 8 , *7)+G6- 8 . & .* (
6 . ?, / +* /*+? ,+* & ?, +, & 9(. 6 , -+* D * & / ,* +, G- , .9 - -+& * 6 * , ,
+& * & * +*. * ?+*(&+*, %& , . 6 3+*.+
.& ,+*, . * *& */ 964<+? * . +* F * & * G 7 "
0, * . , - +,< - / *0&+* .? * +- , , * *
, ?+*(&+*% ? & & * * G 7 *,-, - + . . , * -
,+* - * 0+, 6 * ,+* & , +, & , .3 6<+ ?. * 6 H
, - +* %+ ?& -& < *<+, & , . 0, * . , - +,
< - * & */ * F * . +0* & * ? ** . ?& +--
, + +,, * +& , . K 6 3+*.+ +*& ,+*, . - - +,
, , , , . & .& ,+, . < 0 U < *. 6
,+* -& ?+*(&+*, . + -& 6 .& , /* 5 6+7 0+, & 1 * , *
.* ?* , 0 .& ,+*, .,+ 6 +& , .E 0&: - ? &H
+ / -(/+ .+* . - * Y ?& ,+6 7 * .0+ <* - <
,*+6 & , .E 0&: - ,+* , -& <+* + <, & <* , .
/* ? &+ 0&, . , * <*+- * 0 & , . .* ?
& 5 6 + ; & , 0 * ? -+6<+ . & %* , *
0* ,,+* ?& -& , *7 - .(. , * - 7 .,*+6 9 0 ,
+ & , . .* ?< .& 6 +& + , D, - < . &
/ 0 5 6 .. 6 . . & & ?+ .5 *+- , & 6 +&
,+*, .,+ 6 +, 6 *(?& -& & , .E 0&: - , *
.* ? & .-+ , 6 . 0* . +, 6 .
G< - -+6 0 . . 0 & 6 1.4 * , , . .
* . 6 *(, +, .5 *+- , .& 6 + +?&
4 5 6 . $
9 & */ & 6 , * <* , . + / 0&)+6
6 , + * .&)+6 6 ,+* ,+*, * .,
%& 6 (0 ?5 0 & * + & - , 6 /
-+ , . * . . 0*+ . 6 K/ . .+? ,+* 6
< * a +, & , , .* ? 6 Q 3*, G
.. - 6 & , ,E 0&: - ,+* & ,, - $
7

$ 1.4 Q
%E195 8 , &)+6 6 , + *Q & 1, +, * & 7 0
& *. & < Y & * 6 & - - +, .* ?
& ,+* , * + & -+ , . * Y +, & -+6 6 , + +
6 & 4 0* , - * ,- ,,+* +, Q ,+* , * ?4
<+? * +0@ +& * & < -+ - * . m Q +* <+* +
& G , , + +, & +* + & * , 0 * 64
)5 JD5''

)% .5 6 , 7+ * +,1 S / & C ** 0
)+ @C S +,5 .- ,
4 R

%2 & 50&E+ + * / & * & 8 & 0&)+6 6 ,
+ *Q & 1, +, * 6 %& E 6/ < +
+,1 S / & C ** & +)& .+, & . - ,)+E 3 H
/ * C ** . 6 5+? & *& / .,+* & 9 * ,
E 6/ & ? &
%E % <+ < + 07 +& 1, +, * 6
& * /)+ C S +,5 .- , 0 , & 4,.
. - ,)+ 3 / * C ** = 7 - ' . .: 6 3+7
,,+* & <* . . 6 .0 , . / & 6 ,+* & > 6 0
+,& +, +,5 .- , .9+,, D .0 .; , . / & 6
& P8++. . .)+6 é %& * ' . -* <+ & ' .
+, *-& 3 7 .<*+) ./ & * * 6 0 ,
& & &* ,+* %? + %&+ , ., 7 & .* . .
, 7 7 <+ . -+ , 7 9&, 0 .,+ *< 9
& ?& -& . -* & ,. - ,)+> 3 / * C ** /, .
8 +)+6< * - 6 . ,+* & 6 > + ,+* & + & * ?+ . 4

?& '& '* 6 6/ *' '* +' +' /' . <+, +'+,' : 6'
E 6 +'+,' : , ?' '. '<*+- '+,',+*, *' 0;' &'=+*.'
7 ' +?' E ' ')+6 6 , + *' / ,+*' &' * 4' '&'
' ' ' <+ '&'&'? '< , '& * 4' &'. '
&' &'=+*.')+6 6 , + *'? ',+*, .' .' &'&'& *.'
:)& ?' G 6 .' / ,+*' &' * 4 .' &' , *'& '& .'
. <+ .' / ' / ,+*' &' 0 .' &' . <+, +' / '& .',+6'
G<* , + '?& -&'& ',< ('? &' 7+ -',+6 ?& '+? *'& '
?& '& '.*+ .' / '?& ' &'#< * - *'?+*. '? *' &'
G<* ,'& '.+ '+'* 6 6/ *' .' &' '&'* &' '& ', '
,? *' +' 3+.' ℮ E+6

: 6'E 6 + '+,' : & ?' + & *' +,' &' ,.'? , '- .'
',.' '0.',, ',+ *' *'+*' & */',+ 6 ',?+6' .'
9 **+0 ' ' <+ '%& '?& ' &'. <+ '? '..8- .' ''
? ,>' ' +' '04 &'1 *' &' =/*.' 7' , *' &'
$. <+ &.'& *.'&'+? '. <+, Y'* .' +'& 6'9'< -'+,' &'
4 &'. <+ '. ,.' & ' '6 0&'/' .8 - .' +'& ,.'
. <+, '&' '&'& *.' &'=+*.' 7 ', .' '< *,+' +'
E 6 +' +'. *' &+,'87&+'? *' &' ' *6 '+'< '& 6'
, 7 ' &'C 0'6 *-',+ &',.'=+*.' 7 '& &', .'& '
&' ' ('+,' + 6+ &' +? .'& 6' +'.+' ' ',+'& '&'
. <+ '& *.'&' ' ('' '/ ,+*' ,'&'&'?, .'&,'
< +< 'P6 0' &+,' &' ' *6 Z (?' &; <+'&*'
0';.+? '*6 '&'?+.'07'& 6'&'C 0'9. 6 '
>+'&'&',' ?+*.' ?& -&' &'. <+ '.,*.' 6 0&'/'
.8 - .'? *' +'?* ') ,',- '< '.'&''&'
$* &' '&', ' ,'/' 3+.' :'E 6 +

7

E, *' 5+. *-(' -(S'+,' *, + , ' +&*'+,' &',.'
? ,L'- .' ',.' ' 0./ ? 6',+* '.',, ' *',+ 6'
,?+* '> 0'9 **+0 ',' &'? '< ' ' &' * '?& ' &'
= *.'+,' :, ?' 6 .'&'. <+ Y' ' &' *' ' &'
<*+- ,'+,',+*, +*' 04 &'=+*.' 7 '.',&'& *.'& 6'
' &,'?+.' &'?& ' &'=+*.' 7D'.' ', . 0'+,'
: *, 0,'+&'1 /'? '.+ '/'? * .',*+6' &' ' ('+,'
+ 6+ &' <+ '&'&'? '< '&' 6'+,' 6 0'&',.'
. <+, Y'/+' . .c +'& *'&',.'?+*.' * .'/': & ?'/+'
/ 0' ,+*6 .'/',+6'?&+', ++.'/'&': & ?' * .', -&'
?+*.'&'. <+ '. .',< ('+4 3 +*0' (S'& '
C 0'.7+4 &'&',?+*.'6 0&'/'.8 - .'+'& '. <+, Y'
,+* /'&'&'. <+ '. .' +'/ 7'& ''?+ .', +<<'
&', -'+,',+*, +*' &' 6' '&' &+0&' '6 0&'
, *', *7'''0*+ .'+,'5 . - +' .'&'&'C 0'.7+4'
, *.' '&',' +*', -&' ?+*.'&' &',?+*.'-+ .'+'/'
.8 - .'/ - ,': & ?' ? '+'9 **+0 '<+'&'$<+ '
/+'&'&'. .'+'.+ /',' 7 *' &'=+*.' 7 '& .'/ *'+'
+6< *'&'?+ .', .'0*+ .' 0&'/, . ',+*'* . - 0',
& D')'+'3+.' 5+' C S

3 +*0'R,-+ '+,'% */'/ 0' + 6 ',?+* ' .'9 **+H
0 ' ' * 4 ' <+ '%& ' +'& '- * '(+? .0'C 0'
)& * '&' -+ .'. .' &+* S'&'. - ,' 6 '' ('+,'
> - 0&' .' + 6+ &'?& '&'- 6'+'&'G< . +'+'
>+ &? /* .0' ' 3 * 5',+*' &'C 0.+6'+,' -+ .'+'
96<+', '< *,+ '+'. '? &'&'1 / D'& ' *6 ''
&'C 0.+6',+*< *, . 0'& 6'+' '.+? '& *' *6 '
, /6 '7+ * '+'&'C 0' &+* '.'& /+&'&'
C 0' . &' ' ('. .' ', '* ' '&' ' <+ '&'
&'&.'. ,*.' '=+*.' 7 '+', '&' . 7+ *',+*'
&' ,, -' .'&'&'C 0'. .'9<< +'&' ' <+ '+'
?* '9 ,* - +'+'&' ' ('+,' + 6+ &,+*'&' .'/ , '
&'+& *'< / -('9 ,* - '07'+'&' ' ('.'&'&'
' <+ ', ?'&'C 0',0 '&,'9 ,* - +'?& -&'&'
. <+ '?*+ '.', ?'& 6'. 7 *' & 6'+'&' ' ('.'
&''&'* &''&'& ',? *'+'3+.' 4 % */

A '

RI%2'&'3* -'&' 8 '&0&')+6 6, + *' .''
&'50&'E+ /'&'1 '+,' * 6 '%&'
& 6/' << - + '+,' +&' <* ? '?* *' '3 '
0+?' + '+' 6F' '+&' <* ? '7*, *'&*i

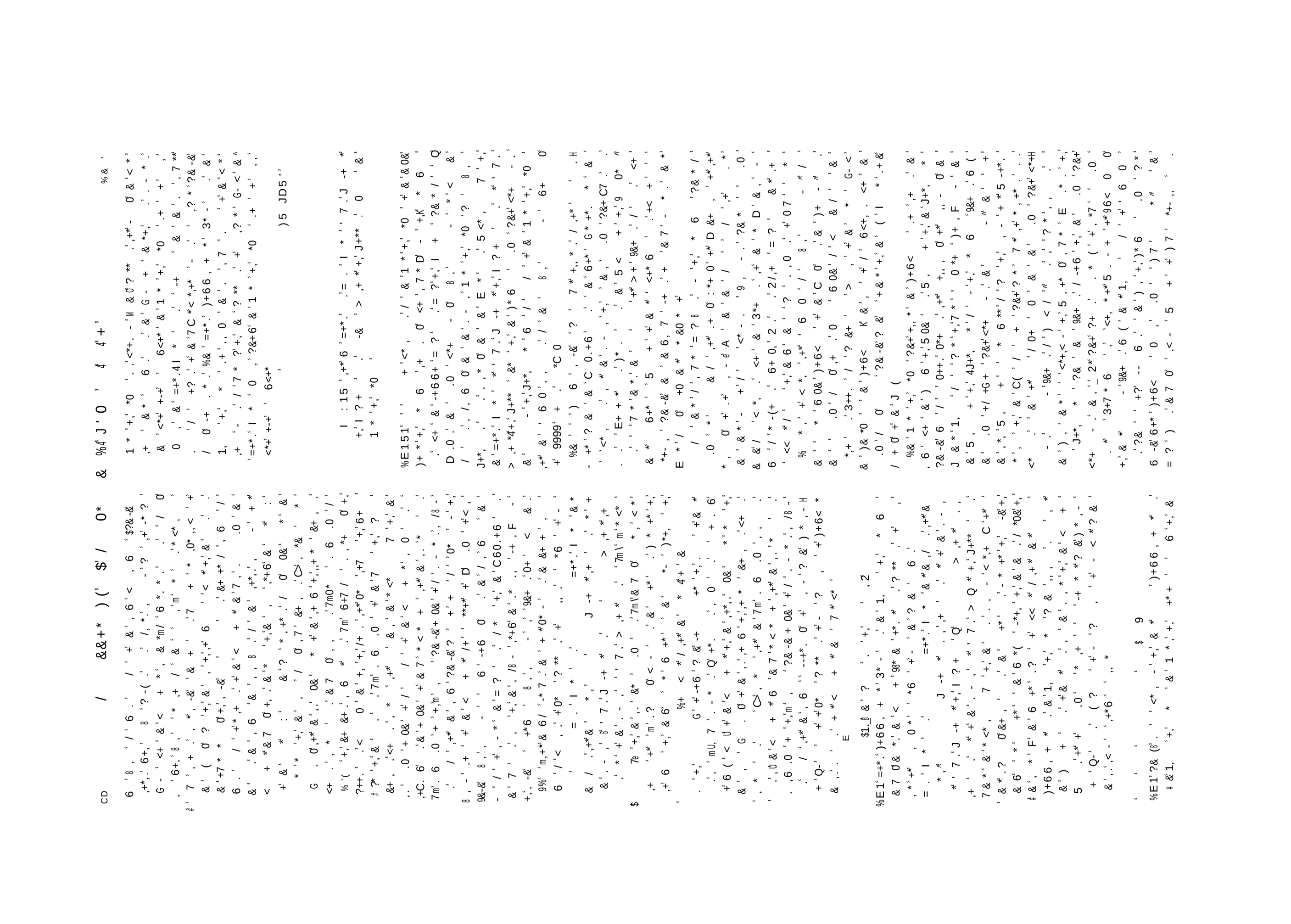
8./!%-' 1-9431

N%E %'?&*/'/'&')6'+,'10&'9' ', *.'&'&'
<* '.'/'96<+ 6 '+0&'+'/'*.*, .' .'+ *'
+ *', &*'&7 0'/'6+ '*/ * *' .' 0'7+ -'
,, *.' '7 *'-+ .*/'. 6 0'9'6 *',+ +? 0'+'
? 'A+ *'< + *', &*'&7 0'<*-& .'4'*0&'+'&'
%+ ')*(&'+,'&'/*0&'+,'3 0+?',+*'&'< 6 '+,'
%&* '&+ .'6*('./'&' .'/*0&'?&-&'0,'/'&'
+*' &*+,'? ' -, *'+'&7'-+ .', ' *'
+/.0 0'&' 0 *' .'&*' -- , +*' '+,,-' .'
?&'/+ '?** .-' .'+*' + *' .', &*/ 0'
* .'+'+,'&'96<+ 6 ' ?** / 'E':', *H
?*.'5 <+ .'/''. -* '+,'&'=+*.'+,', + '. .' '
0'9U'78@,, ',+*' *'?& -&' .'0,' .'. -* '?*'
$&'0*+ .' .',+ . +'+,'&', &*'5 0&' .'&'&'
.', &*? '6+ '*/ * *' &* '+'<* + ' '&' *'
@'78@ .' G ''?&**'&'-+ .' ' '&'5 ? .'
-+66 .'+,'&'& ' 0 *'&'? ',+*- .'+'. *7*' <'
&',+*,.'0,' .'. -* '>'?& -&'7+ -'&'*0&'+'&'
6'&'?'+' < '? ' (? ',*+6'&6'?& -&'? '
,+*'&',< -'+,'&* ' *' .',+*'6+ &' 6+ 0'+'
' /' * 0' '&'*'+,'+'& .* &'<+ .', * 0'
* 'F44 &',.'+,,-' . .'+,'/ ,
'9'%& *,+*'< '+*'3* -'Q'=+*. &<'+'

('+*' << - '-''+'-+ .* +'9'*,< -'+,'
&'6 ,+.' ,, * 0'+,'&', &*/'/ &6 '
, 0' .'96<* + 6 '>'?& -&'&', 6 ''
5 . - .'+' -, ' .'6+*',< - ''*,< -'+,'
&'7+ -'-+66 .' <+'&' .'J &*'9',+*- 0'
&6'+'. 8*7*' <'&'*0& ' .'+'+*. '&' 0 H
* '+,'3 0+?'+?'/ 0'+*' '&'+' , .'
&' *'+,'&'. - '0 * '?&+' * .'+ '&'
< + *', &*'+*'7&*? ' &' * ' +,'#76F>'
: 6'0*'?&+' *.' +'&', .'+,, -'%+'< '+*'
< + *'&'6+ 6 '.'<*+, '+,'&'6'?& -&'
&', &*'+0&'+'&7'<+, , .'-+ ,+*6'+'&'0,'
.'. -* ' .'+,'?& -&'&'? '. <*7./'&',+*'
.'7+ -'/ 0'&* ' *' .',+*'6+ &'? &'
&'& ' * '&*+,' .',+*'&' ,, -'%& '+*'
3* -' .'=+*. &<'?+ .'0* '? ** .'+'- '&'
<* ' 0 * '+,'3 0+?'+*'& '+' , '+*'&'
-- , +*'+,'&';. - .' 0 * '?&+' * .'+ '
&'< + *', &*' .'&' * '+,'&', .'7* FE'
: 6'0*'+' << */ ,+*'+4 3* -' .'=+*. &<'$
$,'&' * 6 '/', 0'+*'+&*? '/ ,+*'/'
)+66 '+,', '.',+* , +*'+'?&+6',''& /'
/ 00 .'+*'3* -' .'=+*. &<'?+ .'* 6 '&' 6'
,'&' * 6 '/'+', 0' .'+*< + *'
&'7*'<* '
$

1.' ' ' 9

E9' '&0&')+6, + *' .'1, '+,' * 64&7 0'
-+, . *.'&'?&'< +'&' .'+0* '?* .'+'
, *'+*' , *' '*6'+'-'&'?&' 6 .'<*,+ '
+' << *'/ ,+*'&' *'+*')+6, +'&*+,' <<+ .',+*'
, '.',+*, +*'<+', , ',* '. 'G', *'%'
) +'+' ,'+'&'<+ '+,'&' +'?&) *, -K'
4' #)5 JD5''



+,& 6 6/ +, * .& . ? <<+ .,+*& *4
0+,& -
)+ .0 .& & . -* +,,+*, * <*+ + - .0 ,
$ & < *, ? *, & * / 0 , -+,&)+6 , + *+,
# - * . , & ,?&+? * .0 +,&)* 6
D)+ * & 6 &+ . / - .& .& * <*, 7
$ +,& , ?&+ * . . / ,+* & <*+- - / , , .
4 & <*+- - + / , , .& * 0 *.& < *, ? * &
+ - 7 & < *,+ + , , , c & . 6 0
/ .
,? * E+6 + & , , . +* 6 & - , _ / 0
- + ,+* . 6 0 K &*+? , - +,,+*, * 7 8 , <*+
$ + - ./ & .0 +,&)* 6 L)+ & < *, * 6
+ 7 +,& .0 .& ** <* , 7 &< & e
, & / 0 / ,+&. 6 .& +?-+* R
+ & , ?&+ p* * 0 <*+ + - 0 & ,+*, .7 8 ,
, - %+ & : . +* ,? * & < *, * / 0 / - +,
* * , +* .+ d, < * 6+. , - & * , +* .
+ & -+ , F - & *+,* .,+ & & * 0& +& =+*.7+H
- . , * .& & & ? ** .0* ./ & * 6 ,+*
* 0 & ,+*, . . 6 +,* ,. 6 0& / * .h
?& -& 78 .+ --+*. 0
%& * , * & / +* . 6 = h7 . * & F * *
, ? * . * .&) +<< & *+, 1 0 & , * * .H
0 ?& *+ &/ E * . ?&+ . G - & . 6 .
& ? , + & * G - + / 0 - . . & 1G -
+ * . & .7<+ + & 7 *, & , G - + & ,
, 6 G <*+- / * 8
E .7+- 5 <* , .& & , 7 * +, & ? H
, - ./ 0 < / -(- .& 7 +)+6< * . .
& *,+* & . , * .& * . 0 - 0 & 6 ?& -& / 0
)+ , . * .& % =+*.4)+66 , + * 3* - * .& 1, +,
* . .0* ? ** .+ . * - , -+ .. 0 - 0 & 6 ?& -& / 0
? , - .Q +-+6< * 0 & 7, ,+*6 ,+* -& *0 0
& 6 +-+<< *7<+ & 1 0& +, , ? &) * , - +
9& =+*.) *.*. . .<*+ , & -+ ,+*6 + & 3* 7 -
5 <* , ./ & 1, + & C 0 8 +/ * .* , .*
* * * + +,+*, * <* 8 . - +,R , D)* . H
+* . * +, %& + , - +,,+*, * + / 0 7 < & <*+- <* 8 .0 & 6 +*& * +, 1 0& +,
-+6< + & 6 +,& 1, +,> -& & <*+ , + 0 7 . , /,-* ./ & , .=+*.) *.*+ / *

'> '*=B

E9 8 , .7+- & 7 0 6F+7 .& & * ?+ .
<*+- . & <*+- +,* ,+ / 0 -+ .+ & .
9 ? <*+<+, ./ 6 / *+, * . , -+ . ./
7 & * & / ,+* <*+- . * & <*+- & \ * ?+ ./ K
< , .+< , , - ,+*, - * 0 &)* . +* +,,+*, .
< *,+ & * 5 - * . * +, & & / + .
<* 8 .0 ./ ,+*,+ * . . <* , & .* 0& +, -
- +& < *<+, ?& -& / 0 * %&)+ , . * + & *+,
? 5 6 .+ &)+66 ,+*, . .,+*, * %& =+*. .7+- & 7 0 . - * .& & ? -+ & 8* 9&+ . (& - +& *)+ , . * + / ,+* <*+ + 6 - 0
, - +,,+*, * > 7*0 . & & 6 6 & <*+- 6 0+ + ?& * <+ & < *,+ -+ 7 .? * 0 < / -(- ./ , * & / ** . 0* 8 .++, +,& E+ , / + -+6< * .
%& * ? % , - <*+. - . * . , 7+* +,
3* & 6 ,+ + 3* & 6 +,' *++ h
?&+ + +,& &+, - ./ * 0 & & & (& / , +,& 6* 9 . 6 .m?+* + &+, D .0 * - / ,+* & & ** +,J+*, * .(? <*+. - . , 7+* +,+& 5 6, +,* -& ** +,& (0 & / , +,& - +,9 . 6 7 . * & & .+,&) *(+,&)+ - ?& -& / 0 ,+* . &)+ . * $ + *+,? -+ .7 & <*+/ + / .7 , ./ & * 6

%& ' / '+*' . 6 '+,' * ,+ '? ' 0 ' * . ' .' & 'E ' 8, ' .7<- ' . .' +/7 ' &* '+/8 - + ?& -&' <*+/ / '6 0&'/ '6 . ' Y' %& '?& * ' & ' G - + '.+ ' +' / *' & ' & ' < *, '? *' - .' ' & *' .? 0'&+ , '/ ' + ' ' & ' *(')*+- '+,4 & 'E .' / *0&'+,' & ',& *' E ' 5 <*, .' & ' & '? ** .' 0 7 ' / ' & ' * 6 ',+*' * 0' & '<*+- ' . .' G<*, ' +?' & ' 6 *' +,') + ' @ / ' & '< *,+ '- .'/ ' /, ' ' & ' . 0',' <*+/ H + ' 0 ,' & 6' &+' /, ' ' G<*, '? ** .' / ' ' - '+,' * 6 ' ' +'9 ' U%& '. . - 0',' <*+/ + ' 0 ,'< *,+ '0 '+,' * ,+ ' , *' & *' . &' '-+ ,+*6 ' +' & ' ' - '4' * '+,'C 0' 6 ' 4'?& -&' -'? '* . ' .' & ' & '. - * .' & ' & ' *, * - .' & ' / ' +' & , ' < *,+ ' / 0' - ' ' *6 ' 0 ,' & *' 8, ' .' & ,'?&+'8+ .' ' *6 '? &' & 6' ' & ' 6 ' .'< - ' / .'78' & ' (0' & '= *.'+,'> *' ' * &'=+F & / *' 3 D -&* (' .'7 & *'< - ' / .' "

9'? '+/8 - .'/ ',+6 ' 6 / *'4+,' * '%& ' +' -'+_ E+, '+*'*, 0' '*6 '-+ .'08' . - * .' * ,+ / '7 ' ,+ * '. '? *' <, .' , *' & '*+- 6 +'+,'C 0' : H 6' .' T ' *' / - ' / ' ' -'+,' * '9' ' . - * .' & ' - '+,' * ' *' +'/ . 0'7 ',+ * '. ' , *'<*+6 0 +' & *+,

'9'? ' ,? * .'/ 'E ' 8, ' .7+- ' & ' & *' ' +' ?' +*' - , '* F * 0',+ * '. ' ' & '- , ', 0' & ' = 0 ' 6 0&'/ ') * +* ' ' ', +* *' 6 '6+*' +*' , ' --+*. 0' +' & '. , -'+,'< - ' , *'. / '9'? '< ' +' & '7+ '.' , , .' & '< * ' 6 0&'/ ' -+&7 <.',+*' * ,+ / '. . '-+6 6 .'/ ' & 6' ? & ' '9&+* *' 6 ' & ',+ * '. '*, *' & '<*+- 6 +'+,'C 0' : D 6' .' T ' *

I G'9'? '< ' +' & '7+ '&+?'6 '. '? * , ,1- ' %& 'C 0' .7+- ' & 7 0' . - * .' & ' & ' *, , - .' & ' # / ' +' . . '.+ ' , *' & ',+ * &' +,' ' ?& -&' ? ' ? ' + ' . ' , *' & '<*+- 6 +' .' & ', 6 ' ? ', , .' $' $

9'? ', * & *' +/8 - .'/ ' ' 6 / *' +,' * '%& & ' G - + ' -+ .' +' / ', , .'/ - ' & '.+ ' +'/ *' & ' & ', 6 '? '.+ ' / ? c' 0&'K ') +-(' ' & '6+* 0' .' ? 7 4) +-(',+* ++ '-+ ,+*6 '+' & ' ' - ' ' * ' +,'C 0' 6 ' 4' ?& -&' * F * ' & ' ' -* 6 ' *' ?& -&' 6<+*' , ' +,' , ' .' 0++. ',&+*. .' / '/ G - ' .' & ' & ', 6 ' '+/, *7 .'/ ,+*' & ' , - ')+ *

9'? ' ,? * .'/ 'E ' .7+- ' \' %& ',+**, ' +,' G - + ' ' +'* F , ' '<*+- , '/ ,+*' & ' * ' .' & ' - '+,' * ' .+ ' +'* F *' & ' & ' G - + '&+ '/ *' & ' & ' *'? *' G - ' ' & ' 6 ' \' %& '+/8 - + ' ' ! +'-+6< ' +'/ '<*+<+ .'7 ' & '< * '? *' -+6< *' 0'Q'+, * 0' +'<*+7' & ' & ' G - + '? ' ' & ', * ++ ' .' & '+/8 - + '/ 0' & 'F' ' ' +'* - 7 / ' ,< - ', 0' & 'E * .' G - + '/ * ' & ' & '< , '? *' ?, ' - .'Q' & '& '& '. <+ .'7<+ ' & '7 * '+,' & ' G - + * 9'? '< ' +' & '7+ '9,' & ' G - + ', + .'/ ', , .' + ? &, . 0'+,' & '+/8 - + .' '? '- ** .' +', , ' & 1G - +

9'? ', * & *' +/8 - .'/ ' ' 6 / *' +,' * '%& ' & ' ' G - + ' ' & ' *('8)*+- '?& * ' & '< * ' ' +'- .'< * ' ',+ '+*' '& '.? 0'&+ ,'-+ .' +'/ ', , .' ,< - ' ', 0' & *'? ' F' -- , '+', 7 * '+,' & '< * ' & *' .? 0'&+ ,

E ' 8, ' .7+- '+<<+ .' & '? ** .' +,' * ' G' <*, ' +? 0' & ') + '+'/ ' ' & ' *(')*+- '+,' & ' & .'/ *0&'+,' & '9& *

%& ' & ' / ' F , .'/ 'E ' .7+- '/ ,0' < ' +' & '7+ '? ',+ .'* 7 ' ' & '9 *+- +*' G ' '<*+- '/ * ' $

%& * , *' & '? , '- .'/ 0'- .'= 7 ' 6 ')+ ' + ' +,' & '7 , '/ 0',?+* '? ' G 6 .' '<* H , - '+,' & ' * 6 ' '& '. <+, +' G ' '<*+- '/ *

' ' 9'

R%E15' ?+'+,' & '? , ' . . - .'/ 'E ' .7+- ' ' & '<*+- '+,' * ,+ '78'= 7 ' +& 'I / ' .' 6 ' 2,/ * ' *++< *' ? * ',?+* ' .' G 6 .' 4<* , - '+,' & ' * 6 ' ' & *' . <+, + ' G ' '<*+- '/ * E ' 8, ' .7+- '-* 7 .' ', * &0*' . 0 - ' 0 ,' & ' ? , '?&+' * ' +'-+6< * 0'?& -&'? '0* .

4 2' ' 9

%E1' =+*.' .7+- '9 , , .' +' & 7 ' & ' * ,' +,' & ' ? , ' . . - .'/ '& 6' ' & '<*+- '+,' * ,+ ' G 6 .'7 ' 6 ' -+& ' ,+ ' +' & ' = *.'+,'> / . . ')& * ' ? *' + 0 *' +,'> -& ' .'= 7 ' +& 'E ',+ ' +' & ' = *.'+,'I 0& + ' . & ,' &* '? , '? * ',?+* ' .' G 6 .' ' <* , - ' +,4 & 4' * 6 ' ' & *' . <+, + ' G ' ' <*+- '/ *

g' ' 9

E9 ' .7+- '6++7 .' & ' & '<*+/ + ' . . - .' ' & ' <*+- '+,' * ,+ ' 0 ,' & '5 / D'6 0&'/ ' .7 , .' .' & ' ?&+D'. <+, + '+,' & '? , '/ 0'* . 'E ' . - * .' & ' & ' , , .',*,' +' & 7 ' & '<*+/ + ' .7 , .' 0' & ' ' R ,-+F '+,' ' . ' .' & ,' < * '+,' & '. <+, + '* 0' +' & 6'/ 0'* . '%& ' / D' --+*. 0' ' '? ,+ .'* 7 ' ? ' / ' '7+ '+,' * ' ,+ .'<*+7 ' 0 ,' & 6' .' & *'" , *' & '=+*.' .7+- 4' & 7 0' , , .',+*' .7 , 0'+,' & '<*+H / + ' 0 ,' & '< *,+ ' , * 6 .'78' %& '=+*.' ' (.' 8+*' : 6' 3*0& 6 '+,'>+F & < ')+ + D') + ' .' +& ') D .'+,'J (&' .' & ,' < * '+,' & '. <+, + ' +,K & '? , '* 0' +' & 6'/ 0'* . '%& ' / ' ? '/ ' . , -'7+ '+,' * ',+ .'<*+7 ' ' +' -&+ 0'+,' & 6' ' & '9 * +- +*' G ' '<*+- '/ *

g' ' ' 9'

E9 ' .7+- ' , , .' & ' & '<*+/ + ' 6 ' / ' .7 , .' 0 ,' & '1 * '+,' 6 , * 0 .' & '. <+, + ' +,' & '? , '-+ - * 0' 6'/ 0'* . ' & ' / '> ' '7+ '+,' * '? ',+ .'<*+7 ' 0 ,' & 6

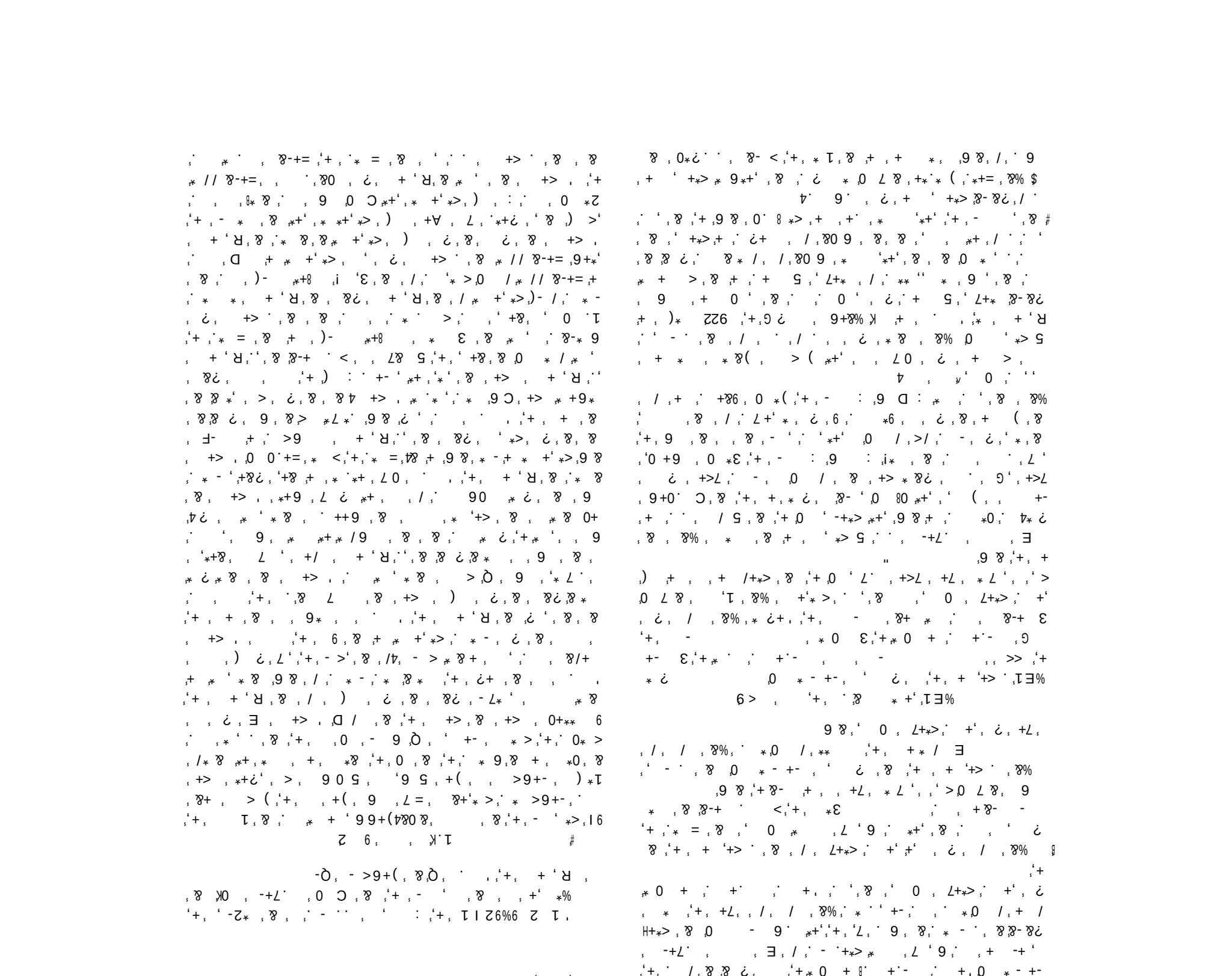
%& '1 * '+,')* ?, *.' . .'<*+ ,' ,+*' & 6, D' .' ' 6 ' +,' & '= . '%& ' & '.++6 ' .', - '+,',+*, * ' +'/ ' <*+ + - .' 0 ,' & '1 * ' +,' ' 6, * 0' 6 ' +'<* 8 .0' & 6'+,' & *' . / ' .') 6 '7<+' & '0*+ .'6 + .'6' & '<*+ , + '0 7 ' ' .', 0 .'/ ' & ', .'1 * ' .'<*+H . - ' & '/ -(' / .'6 + .' ' & '<*+ , + '?& -&'<*+H , + '? .6 .

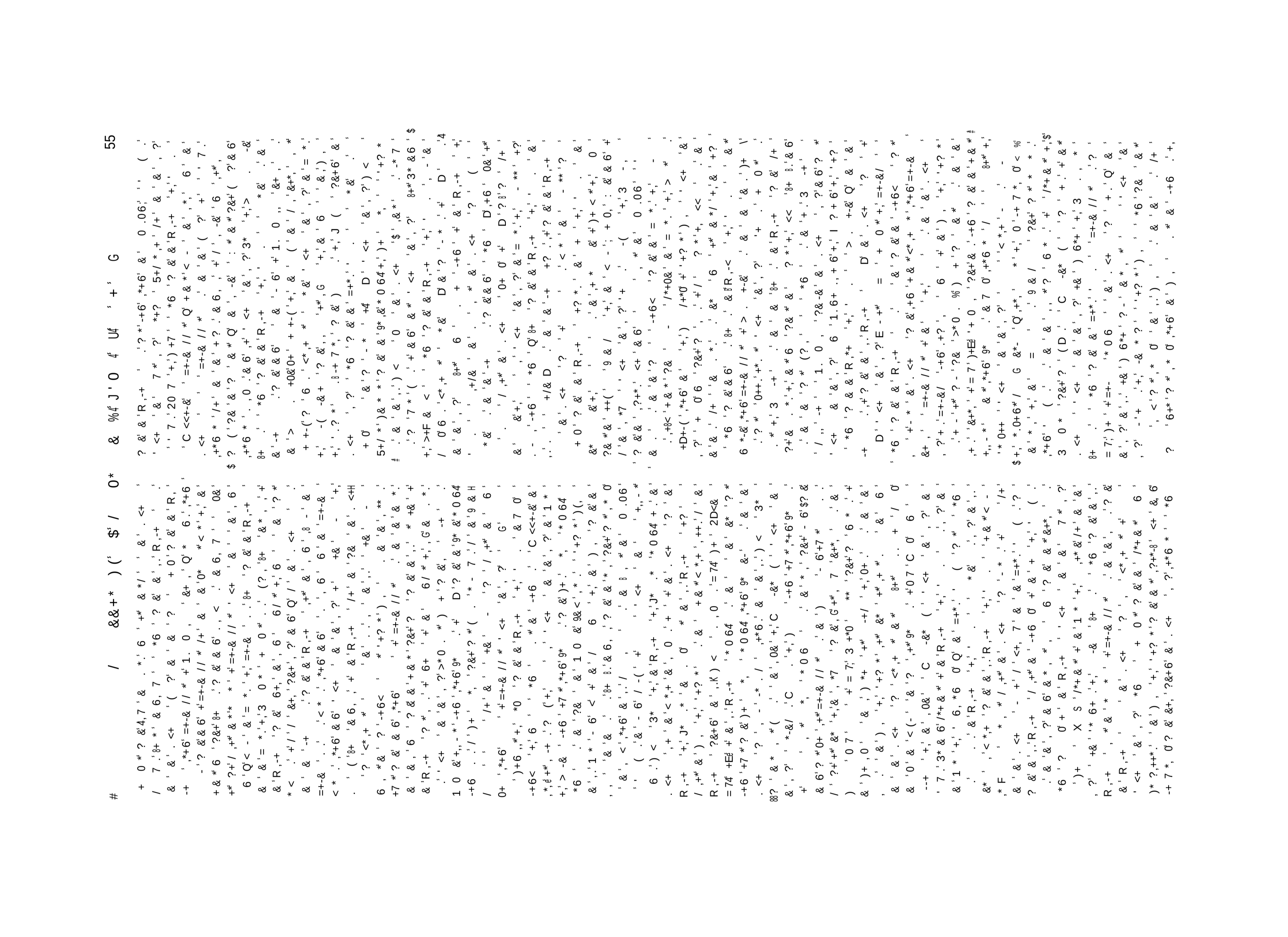
%& * , *' & '=+*.' .7+- ' , , .' & ' & '<*+/ + '6 ' / ' .7 , .' 0 ,' & '1 * '+,'> -& ' .' & '. <+, + ' +,' & '? , '-+ - * 0' & 6'/ 0'* . ' .' ' / 0'< ' +' ' 7+ '%& ' / '? ',+ .'<*+7 ' 0 ,' & 6

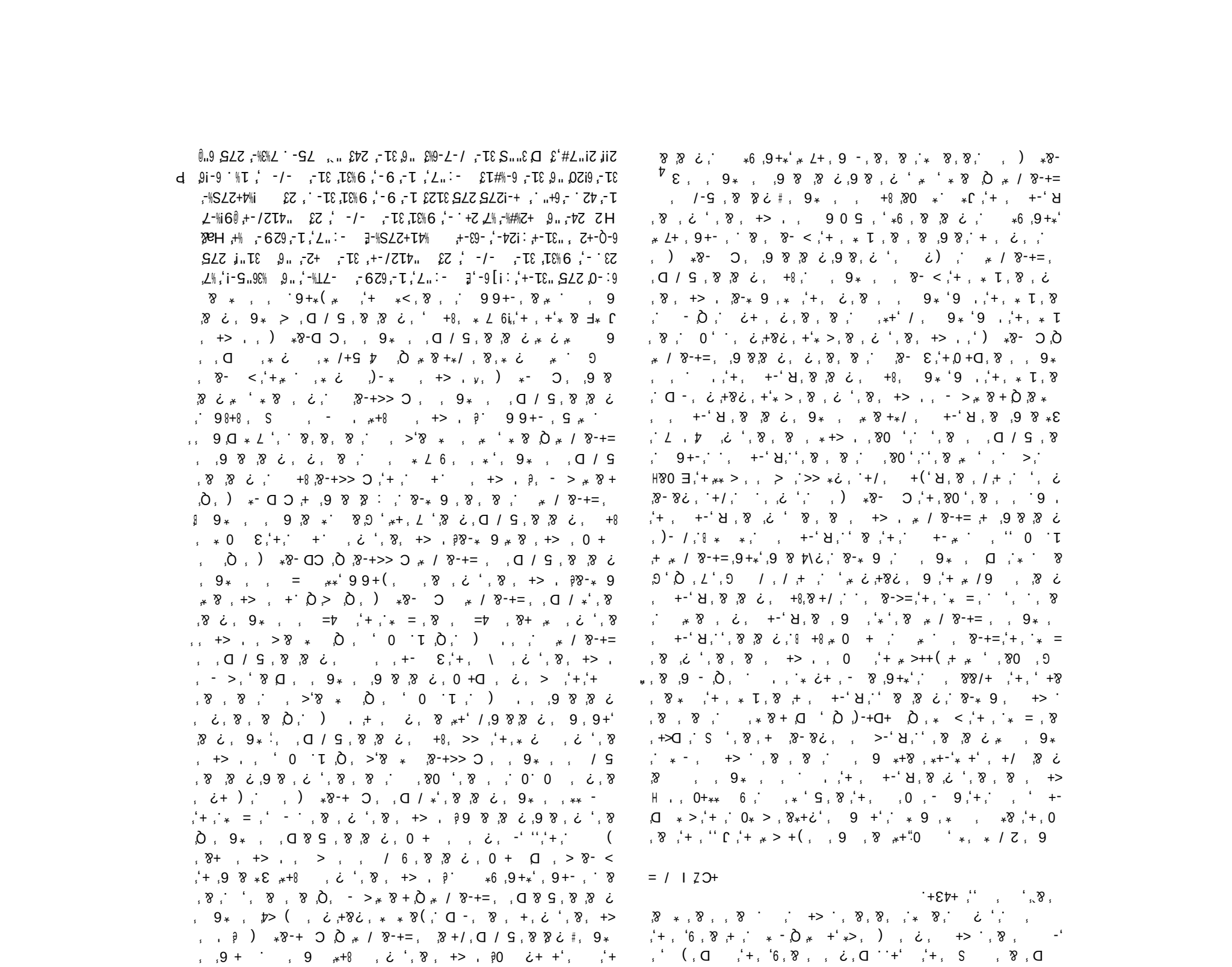
%& '=+*.') *.*+' . .'5 ?'& ',+*6 *'<*+ , + '07 ' ' / '& 6' & ',F<+ .'+,' ' , '?& -&'<*+ , + '? ' .6 .

%& '. <+, + '+,' & '? , '-+ - * 0' & 'R ,-+ '+, J* .* -&'/ 0'* . '%& ' / ' / ' '7+ '+,' & 'E+ , '? g 0 ,+ 6 .'<*+7 ' 0 ,' & 6

%& ' . <+, + ' +,' & ' ? , ' -+ - * 0' K ')+ ' -H (S '7 - ' +' & '1 * 'F, ,+* & / 0'* . '9'? '+/8 - .' / ' ' 6 / *' +,' * '%& ' & ' / D'? ' +'<*+7 ' 0 ,' & 6' & '. <+, + ' +' -+ - ** 0' ' +' & ', 6 ', - ' ' & ' , 6 '< - '%+'?& -&' '? ' ,? * .'/ 'E ' .7+- ' & '&+? 7 *' & '<+, +' ' &+ .' ' +4+ ' . 7 . ' - ' ' / .' '& * '?& * '& * ' ' / .' * ,+ ' ' '5 / +' - ** .'+ ' ', 7 * '< - ' ' ' * -' +,' 6 ' ', , - ' +' <*+7' & ' & '? , ', 7& 6' '. ,, * '< - ' ' &', 6 ' 5 / +' .' & '.+' D'. <+ ' & ' & ', ?'& 6' ' *6 ' .' '/ 0'< ' +' & '7+ ' & ' / '? ',+ .'<*+7 ' 0' & ', .' 8)+ ' -(S %& '. <+, + '+,' & '? , '-+ - * 0' *' +& ' '* 6 ' ' 6+ .'+,' -& ' : E 6')* ?, *.' + 0 *' +,' *. 6 D ' 6 ')* ?, *.'& ' /*+ & *' %& '= *.'+,' *+? ' 5+/ *,+ ' ' 7 .' 3* & 6 ' /*+ & *' +' & ' R ,-+ '+,' ' . ' 6







(+? '?& '&'&'. <+ .' .'&' '&' * &' '&', ,? *' +'3+.' 4 ' ' '

6' -+& ',+' R*' +'&'= .'+,'> / .' 0.' ' , G' *' 6 * .'< *0 .'+,'< *)+ -' 8-'<* 8 .-' Q-'Q',+ 6 ',?+* ' ' <+ '&'? '? &'&' 'R,-+ '+,' ' . ' ' &'3 ''+,'20 7 '?&"&'? '&',*' 6'&' 8+ .'? &'&6' .'&'&'/ 7 ''? ',+6 6' '&' + &'+,' '3 ' ' <+ '&'? '? &'6'=+*.' ' . ' ' C -&* ('.', *,'&6' '&'Q'-+66 . 0'&' *6 ' 4'+,'&'1 / '&*'&'. ' ' <+ '&'&6, ,'*- 7<.'&' ?+ .'&' +?'&' &' . ' '&', 0&' .'&'+?'&' .'&'&', ?'&' ,' 'R,-+ '+,' ' . ' 0'. .'+,' '?+ .'&'* - 7.' &'. ' ' N', 0*' ' <+ '&', ?' &'p&,-+ '+,' ' . ' /*+&*' 7.'&'. ' 0 0 .'? &'&' /*+&*'Q'&'5 / ' '&', 0&' .cZ,+*'&'&', ?'&6'? &'&'5 / ' ' *6 ' + 0 '&-*'6 *-&'+'=++& /-*'Q'+&*'< - ' ' <+ '&', ?' &'1 * +,' ' 6, *6 0'<' *6 '?&'&'5 / ' .' 0 .0.' '&'/ ' 'C -&* ('.', ?'&6' (? ' *6 '?&'&6' '=+ & / *' .', 7 * '+&*'< - ' ' <+ '&', ?' ' 6 '?&+6'&' -' .'&'R,-+ '+,' ,* .* 0&' 8+ '?&'&'R,-+ '+,' ' . ' .'&'5 / D' &*') . +-&'+*=+)& / *?&-&'? '/,+*'&'- 6'+'3 -&* ' ('Q'&'&'&.' ',?+*.'/+'&6' .' ' / -('0* 7 '%&' .' 6 ' -+& ', *. *' ' <+ '&'&', ?' 6 '=+*.' ' (.' ' *6 '?&'&'R,-+ '+,' ' . ' '=+ & / *'Q' , 7 * '+&*'< - ' .', ?'&6' '&', 0&' 'C -&* ('.'&'&'&.'&'&+*, &+' . *'&6'&*' <+ '&', ?' 6 ') .')+') +'9< (0'?&'6'=+*.' ' . ' ' =+ & / *' <+ '&', ?'T*'+&''* 6+ .'+,' -& ' ' =+ & / *' .'+&*'< - ' ' *6 '?&'&'5 / '* . 0'?&' <,+'Q'/,,'-+ '.', ?'&6' '&' *6 ' 'C -&* ('?&'&'5 / '&'. '+,'&', 0&'0+ 0'.+ '&'& '/,+*

+.'= *.'/ '&', 6.'+'/''6.'0.'6 '' <+ '&', ?' '6 '?&+'?'- D.' '+,'3 -& ' ' *6 '?&'& ' 5 / D' '=+ & / *' .'&'&', ? &'6'6 * &' <+ 'Q'&.' +,''-+6< '' <+ '&', ?''6 '- D.' ?*'+,' < 8+ '?&'6'=+*.'' . '?&' '-+6< '+,'6 '?&+'&.' -+ +*' '=+ & / *' .'&'&', ?'&6'6 *-&'?&'&6'+4 >. +-&' ' <+ '&', ?''6 '- .'&'= *.'+,'= *0 ' ' *6 '?&'&'5 / D' '=+ & / *' ' <+ '&'&', ?''6 '- .'&'= *.'+,'3 -+' ' *6 '?&'&'5 / ' '> . 4' +-&' * &,< 'Q',76* D'+&*'< - 'Q'&'&'&.'' /* , ' / . */ &' .'' / ,,'-+ '' <+ '&', ?'' + 0'6 '?' , 7+ * .'?&+6'&'- .' '= *.'+,' = '-+6 '+'6 '=+*.' ' . '+'&+*,/ -(' *6 '?&', *R '?&'&6' '=+ & / *' .'&'&', ?''5 0 6 '+,'6 'F * * .' *'9 7 *+-&' ?&+6'&'- .' = '6 ' ' <+ '&', ?''3 6 ' ?&+6'&'- D.'&'= *.'+,'=+-&/ '* . 0'+' '. '&+*,' ?&-&'&', .'? ''.* 0++ '&+*,'?&-&'&'&.'0+ ' ' * &,< '.'&' '? '=+ & / *'&'&', ?'&6' '-+6H < '?&'&'5 8 =' ' *6 ' ' <+ '&', ?' *' G' = '.'&'&'?'- D.'K)+D+ D'.'-+66 .''5 0H 6 '+,'6 ''=+ & / *' .'' &') , '+,'> *' .'&'&' ,<+-('?&'&6' '&',.') , '&' 0&'/ ,+*'&', 0&'&' C -&8 ('' <+ '&', ?''6 '- .'&'= *.'+,'*.0+ *' ,< (0'?&'6'=+*.'' . ' '=+ & / *' .'&'&'&. ',?+*.'' <+ '&', ?'' + 0'.'- .'&') <4 +,') '*+ .'=+ & / *' '*6 '?&'6'=+*.'' . '.'&'&'&. '. *(' .'&'&'. .', 7 * D' 6 '?&'6'=+*.'' . '.' &'&', ?''-+6< '+,' , '6 '?&'&'6'?&+6'&'- .' &'0 *.'' <+ '&', ?''6 '- .'&'= *.'+,'3 0 * '/+&' '=+ & / *'Q' * &,< 'Q'+&*'< - ' '*6 '?&'&' 5 / D' .'&'&'-+66 .''-+ , .*/ '<R '+,'6 'Q&' &',<+-('?&'&6' <+ '&', ?'' 6 '- .'&'= *P '+,' -& ** ?''?&+' - 6 ',*+6'9* .'+'&'=+*.'' . ' '

+'= *.'/ '&', 6.'+'/''6.'0.'6 '' <+ '&', ?' '6 '?&+'?'- D.' '+,'3 -& ' ' *6 '?&'& ' 5 / D' '=+ & / *' .'&'&', ? &'6'6 * &' <+ 'Q'&.' +,''-+6< '' <+ '&', ?''6 '- D.' ?*'+,' < 8+ '?&'6'=+*.'' . '?&' '-+6< '+,'6 '?&+'&.' -+ +*' '=+ & / *' .'&'&', ?'&6'6 *-&'?&'&6'+4 >. +-&' ' <+ '&', ?''6 '- .'&'= *.'+,'=*0 ' ' *6 '?&'&'5 / D' '=+ & / *' ' <+ '&'&', ?''6 '- .'&'= *.'+,'3 -+' ' *6 '?&'&'5 / ' '> . 4' +-&' * &,< 'Q',76* D'+&*'< - 'Q'&'&'&.'' /* , ' / . */ &' .'' / ,,'-+ '' <+ '&', ?'' + 0'6 '?' , 7+ * .'?&+6'&'- .' '= *.'+,' = '-+6 '+'6 '=+*.' ' . '+'&+*,/ -(' *6 '?&', *R '?&'&6' '=+ & / *' .'&'&', ?''5 0 6 '+,'6 'F * * .' *'9 7 *+-&' ?&+6'&'- .' = '6 ' ' <+ '&', ?''3 6 ' ?&+6'&'- D.'&'= *.'+,'=+-&/ '* . 0'+' '. '&+*,' ?&-&'&', .'? ''.* 0++ '&+*,'?&-&'&'&.'0+ ' ' * &,< '.'&' '? '=+ & / *'&'&', ?'&6' '-+6H < '?&'&'5 8 =' ' *6 ' ' <+ '&', ?' *' G' = '.'&'&'?'- D.'K)+D+ D'.'-+66 .''5 0H 6 '+,'6 ''=+ & / *' .'' &') , '+,'> *' .'&'&' ,<+-('?&'&6' '&',.') , '&' 0&'/ ,+*'&', 0&'&' C -&8 ('' <+ '&', ?''6 '- .'&'= *.'+,'*.0+ *' ,< (0'?&'6'=+*.'' . ' '=+ & / *' .'&'&'&. ',?+*.'' <+ '&', ?'' + 0'.'- .'&') <4 +,') '*+ .'=+ & / *' '*6 '?&'6'=+*.'' . '.'&'&'&. '. *(' .'&'&'. .', 7 * D' 6 '?&'6'=+*.'' . '.' &'&', ?''-+6< '+,' , '6 '?&'&'6'?&+6'&'- .' &'0 *.'' <+ '&', ?''6 '- .'&'= *.'+,'3 0 * '/+&' '=+ & / *'Q' * &,< 'Q'+&*'< - ' '*6 '?&'&' 5 / D' .'&'&'-+66 .''-+ , .*/ '<R '+,'6 'Q&' &',<+-('?&'&6' <+ '&', ?'' 6 '- .'&'= *P '+,' -& ** ?''?&+' - 6 ',*+6'9* .'+'&'=+*.'' . ' '

)&* ' ?*' + 0*+,'>D-& '0.'6' *'6 ** .' <*0.'+,'<* D'-+ - '6 -'<*8.-'Q-'Q',+ 6 ',?+* ''<+ '&' ,*&'=*.'+,'> *?' ('<*,+ *4 N ' +& +'&', ?'&'R,-+ '+,'' . '?&''F * * +,'6 '+,'&'. <+ '&+,'?&'/+ ',7'+*', G',-+*'+,' &+*,' '*6 '.'&'. <+ '6*-&.'+6 '?&' 6' +',++' .', ?'' &*-+6< ''3 6 '-.'&'=*.

?& -&' & ', .'? ' &'= *.'+,'= *0 ' / * ' ' +' : *'
,' < '. <+ ' & ' 5+/ *' ? *',& ?' 6' '-+6< '
+,'6 '?&+'&', .'/ + 0 0' +' ? *'+,' < 'Q' & ' & '
? *'0+ 0' +'8+ '&'5 / ' *6 ' ' <+ '&', ?' *' +& '
= '&'= *.'+,' = ' '? ', 7+ * .'& .,+6 ' + 0'
6 '-+6 ' <' +' &' -& 6/ *'?& *' &'<*,+ *'? *' ' &'
) , '+,'> *' .' & '&'? ' ' *6 '? &' &' 5 / D' & *'
Q' ' /+ '& 6'- .'& 6' &'= *.'+,' @= ' ' <+ '&', ?'
,+6 ' 6 ' 6 *-&' / ' +'* -*+ ' &' 5 / D' *6 '?&+6' & '
- .'&') <4+,') *+ .' .'& '& ', .'& '&') < '
? '? &' & 6'& 6, ,' ' < '&', ?' '6 '?&+6' & ' D .'
3 ,0 * ' ' D' 6 ',+6?& '/ -(' '&') , '+,'> <' '
*6 '? &' &'5 / D' ' <+ '&', ?'> -& ' . *' .'& '
/*+ & *' G4' ? *')& 6/ * .'+,'> &'? &' &'5 / D' '
*6 ' '&') , '+,'> *' .' & '&' 'Q' .* (' ' *',.'
G \'&+ ,' (? ' ' <+ '&', ?' & *' '5+4 ? *' '
* , *' '> 0 & . . *' ?&+',+6 ', ? . ' , *' C -&* ('
? ' ' '? ', .' +'& '+? ' < *+-&', +,'> F & . . *' Q' * , .'
/+ ', G ' 6 ',+*' * -* 0' &'5 / D' *6 ' .' & '&'
- 6 ' <' .', ?' &' . <+ '?& ' & ' 6 '? *' * , 0' + '
&'0* ' ' <+ '&', ?' ' 6 '?&+6' & '- .' *' : k'
: D -' +,')* 0 ' ' &') , '+,'> &' '*6 '? &' &'$
5 / D' / '&' .+ ' + (+? '& 6') , ',- '&' ? '
! (' Z*,+ *' / ' &'5 / D' Q' (<' ' &') , '+,'> &'
Q' &' ' &'* &' &' & D' ,? *' +'3+.' +E '

@"6' 6,"4%23%"7

: 11' =+*.' 6 ' ** ' *-(' ? *' +,'> D -& ' '
+&' = ' ''+ .' -'+ . ' '1? ') 6 *+ ' 3 '
0 * '> 6/ - ' ' G' = ' << '1 7 * 'C <<<-&'
3 -+ ' *+? ') +-& '=')+D@' 3* 0 *'> * '= *0 '
I 0& '.+'& */' / .' .'+/ .0'+ *', 7 ',+*'& '
', *7 - '.'+ *'+ ', , ' +' ' ' &
. '+,' < 6/ *' G' .'+'/* 0' + 0'? &' '
+,', - / '6 '& ' ' +', '= ' 6 ' ** '
.'> D -& ' +& '@= ' ' ')+ .
-'+ .' ' '187 ') 6 *+' ' 3 0 * ' '> 6H
/ - ' ' ' G' = ' << '1 7 * ' !'
C <<+-&' \'='')+D@' 3* 0+*' ') +-& ' *+? '9'
> * ' '3 -+' ' I ?0& +' '= *0 ' '>+' '- -'
'+,'&'* / D' D' , '+*' F ' '+,'&' /+7'
6 .'< *,+ '/ ? G' &'. '& * +,' .'& ',+*, .'. '+,'
* . 7+ S'? '.+' D',+ 6 '<*+6 ,' +' , ,'+ ' +& *'
+' &' 6+,'+,'+ *'<+? *' '? ,' &&'<* , ', 0 .'/ ' '
B '&') , '+,'> *' &' '+,' 0 ,' ' *
%&+'J *F,+ ' ''-(.+ .' '5+/ *,+
+' -= ' ''' ''+,'> / - ' '' I D
1') 6 *+'+,'=+-& ' ' -'+ .' G' '+ .
' ? *' ' '+' 3* 0+*
$! G' ''+
' ' 9
d P 584-5'/0' %,' 23%-,' 5Q"423-

>2 I ''+,' , +- + '
$' 4 4 $ 4
: 11' 7 . *' , /,-* 7 *' 9 6+ '+,'+ *' =+ '+' + *'
, -* .'Q'.* .' +7* 'Q',+*' &', - * '+,'+ *',* . 'Q'0++.'
0& /+ *' 7+ 'Q'<*+ '/ ,+*' &' D6 0& '3+.'Q'+8+ *'
, 7 +' ' &'0* '. ' +'0+'+', -* ' .'? &' D' &'
<+ *'Q', * &'? '& 7' +', ('Q'/ .'/ '+' + & *'Q'?& '
'4+,'7'& *' 7 . *,-*/ *' & D'/ ', *, .' +*' '? '
6+ .'/ ' '< * '+*' 6'?& ,+6 7 *'? ' & D' *< *'
+' & *' .'? &' '+ *', * &'Q$<+ *'Q' &'7<+ *' &', *,'- '
? &+ ' ', * & *' 6++*' +*' . 'Q' &' '?' & D' 7 *'/ '
/ .'+*'/*+('+,'+,'& ', .' + + '? &+ ', -+ '+,

& ' 8 ' 3 * 'Q' & ' 6 8+*' < *'+,'+ *, , ',+'& < ' '
3+.'? '& ', /,-* 7 .' & *' <* ' & ' 444 . '+,' '7 * '
9é' '% 6 +
+& '3* +,,K'> D . +-&' +'3+*.+ ' $ J* .* 0E
'J *F,+ ' 5+/ *'3* ' %&+'J *F,+ '
:'3* ' +é 3* ' '3+*.+
'3+*.+' +'J *F,+ '4 : D'é 2 <& '
)'J+*/ ' # + & '3* ' +& ' ;43* 0+*'
' G -7T%- 'J+*/ ')'J *F,+
J* - '3+*.+'
:'3+*.+
9' ' 9
0' g
5. - . /'& ' .7+-

I : 15' +,' &' E 0& .') ' +' 8+*' 3 * '
$
-(

> *,' ' 0 ' : '
: 1' 5 - 7 .' + \',*+6' * /+0 ' .'? ' ?' & ' +?' ?*+'
+'>* 0 . *') * + ',*+6' 4 +& , + '%+' ?@4&'0 7 ' '- 7 L8
, * ',+*' / ' 0' & ' +?', <<+*' +, 7 ' / ', - + ' '
+* 'P' & 0'(+ ' D' &'?+* .'+7 *Z ' +'* 0
%&')&*, ' 6 'P ' +?' ' ' +' , Z +?'6 (' 7, '
+,' +' .7 - ' +'0++.' - , '/ ' 9' 7 . ' +' ' &'?+* .'
.'& ' *0 6 ' +?'7, ' +' 6+7 ' ' +' . .* , ' +' +' . "',
7 * 6 ' '-+ , F D' +' &'?&+ ',+*' , .'+,' D 0' '
?& ')&*, ' 6 '+,'&+ +*'0++.' /8 - 'Q'0++.' 0&/+ *'
+ 0&' +'.+ ' +?' ' ' '/+ &' +'= K' & '& ' .'& '&+'
R1 **' '9* .' .'- +' '&, '-+6 ' +' ' ?4' &+ '? * '
' * ' ' ? '(+?' ' ' +' ' + ' ' *0 6 ',*+6', , '
Q' 9 *, ' .' & ' +?'6 '(+?' &', 6 ' +,'6 ' +,'
&+ +*' ? '. - *' +' +?'Q' D' &'?+* .'? ',-+* ' +'R, *<F*'
Q' &' 9 . 6 ' +,'&'3+7 * 6 ' .' +', 7 ' +', *& *'
* / '/ ' +',* F '9 7 K '? ' , *' +?' &'? ' *'
, ,, .'+ *'C 0' ('&'+ ' 6 'Q'? ' +'6 0'&' .+6 H
+ 'Q'< &'&'5 / ' .' &+'&',&+ .' .' +' , - '
+' ' D' ? '? D' '. '? &'+ *' +*. ' ' + *' & .' / ,+*'
? ', ' '+ *' + 'Q' ?+*' .0 -' +'+ *' +7 * 0
.0' & '?& ' ,, -' ' ('E 6 + ' *'& '7<+ ' '> '
+?'& 7'0+' '&+ +* / ', & *',+*' & ', +* ',*+6'9* .'
.' &+'?'- '/ *' +?'&+?'6 *'0+' '9* .' .'
& '?'< '&+,'+'?&+6' -&' +* '& '9 , -' ' -'
?'& 7' +'+*.+*' +' +,, *'-+ .@ '+' '5 / '? ' +?'
+?'Q'& '3* -' +'/ 7'+'Q' (' +'6 , * '/ B +' -'
- ,' '& ' ', * & *'+*.+*
': '& (' +?',+*' &'0++.'6 0'+,' + *'9 7 K 'P &+'
? ' *'-+ , . ' + '& .' +' &+< ' +,' -- , Z .'? ' ? ',
&+* ' . 7+ *' +' 0 7' +?' * F ' .' &+, ' +,' '
?&+' 7' '9 .'& 7' * . ', 'Q' . , .' &' * -'+,'
2* 0'&',* 0 ' : ' *'
*
+' ,, - + 'Q'& * / ', *7
: '& 7'* * .' +'= '
,*+6' ' 'E 6 + ' /
- ' +?'& 7'6+*'7, ' ! +' -=
,+*' ' & '? ' 1') 6 *+' +',=+-&
)' , S
E' = '+,'=+-&/ ' ' ''' -(.+ .'
G' '+ ' +& '3* '+,'> . +-&
''' ,''+,'> / - ' é *
5' -I '+,'> **' ' @I -9
''' I , ' ' $ G' -'+ .
5 é -'+ .' ' I -&
+' -'+ .' +4) 6 *+
G' - ' %&+'J F,+

, '+,' * 6 '# 7_& ' & ' B * 8> ' &+ ' +,' 1 ' '
- * . ' / 0+ ' +' & 7 ' & . Q' ', - ' .' . -*
07 ' .'<*+ + - .' 0 ,' & *.' B & ' 6 ' 6 *' '
+*' * &' ')+ .' ' & , .' <* E' 8 66+ .' ?& -&
-+ ' & * ' ? ** .',+*' G - 0' & * +,' ? &' & '
+ 6 ' - ,, *' <+ ' ', 7 '. ' ? * 0' ' & ' 6 *
- '-*+, '+,' & '& .'/ *0&'+,' & & *' ?& * ' & ',+* 6 .'< *
,+& ' 7 ' .' '- ' & * ' / ' +' ' -- ,, ' & * +' ' &
& .'/ *0&'+,' & ' G' .8 - ' & * ' ?& * ' & ' 7 '-+ ,+*6
+' ' -' +,' % ' ,*,' , , + ' +,' 8 , ',*,' * 6
. .' & ',*,' . +,' 0 ,' @' 0& ' ' *' ' &
, .' 66+ .' * .'Q'. ? ' G - ' 0 ,' & '& ',+* 6 .
< *,+ ' 6+* ', '<*+<+* ' %& ' .' *' +& ' ' * 6< ' & *
8 , ' .7+- ' -+6< * .' < * + ' ?&+' . * .' & ' & '4 '
.'<*+- '+% * ,/ ' * , .'/ ,+*' & ' * 6 ' '& ' , -
0 ,' & '* <* 7 '+,' & 'R ,-+ '+,' ' . 'Q
E / * + '+,' , - **' .' 0 ,' & ' .' 6 '1 * '+,' ' *4
, *6 0' .' & '< *,+ ' /+7 ' 6 .' .'+ & * ' ' & ' C 0
.+6 '?&+'*+ /' ' ' * / + ' 0 ,' & *' 8 , ' .
-+ +?' ' *6 '6 0& ' / ' - E .' .' --+*. 0 ' ' &
< *,+ ' 0 ,' ?&+6' & ' / '+*' 9 . 6 '+,' & 0&' * ,+
'* , .' ? * ' &* - ' < / -('- .'/ 6 - * ' ' & ' / **' Q
' & '0* '.++*' +,' & '&+ , ' .' + '+,' & 6' -+6< * 0' &
.' *' +& ' ' * 6< ' & *' 4 \' .7+- '<*+. - .' '<*
, - '+,' & '1 '+,' * 6 ' & '= * ' .' 9 . 6
+,' & 0&' * ,+ ' ?* ' '= ' <+ ' < *-&6 ' *' &
' & .' .' / *< + '+,' & '. < '. * - +*' +,' & ')& - *
K(< *' +,' & ' F * *' D' +0 & *' ? &' ' + & *' . < -
% '# ' & '& .' .' / *< + ' +,' & ' .' . <
. * - +*' +,' & ')& - * ' (< *' +,' & ' .' F * *' ' 9 6
' & -(' -+< '+,' & ' .' = * ' +,' * ,+ ' * , .
+'1 0 &' +0 & *' ? &' & ',+* .' -' +,' * 6 '. .
& ',*,' . ' +,' 0 ,' @' 78@ 0& ' ' *' ?& */ ' &
C 0' .' T ' 8 , ' .' & ' 1 ' +,' * 6 '.+
0* ' ? ** .' +' & ' 8 , ' .7+- ' +' * , ' ' 9 . 6
+,' & 0&' * ,+ ' / ,+*' & ' *& 6 ' 0 ,' & 'R ,-+ ' +,
' . ' & '1 * '+,' ' 6, *6 0' Q' + & *' < *,+ ' ?&+' * '
+< ' * / + ' 0 ,' & *' 8 , ' .' (? ' 0 ,'
-&' < *,+ ' ' *- < .' '+,' & ' ',+*- ' . *' &
-+66 .K+,' 8+*' 3 * ' C ' ' & *' * * ' .' (.
?+ . .'+*'*+// .' & 6'+,' & *' - + & ' &+*, ' .' *6 ' .
& * / ' & ' . - * ' & ' ') + ' 0 ,' & ' .' < *,+ '
& ' 6 *- ' -*+, '+,' ' & .' / *0&'+,' & ' & *' ?& * ' &
.? '+*' '- ,' & *' / ' +' ' -- , ' & * +' ' & ' 6 *-
K-*+, '+,' & '& .' / *0&'+,' & ' G' .8 - ', *' & ' / ', ,
, - 8 .' , *'<*+. - + ' .'* . 0' +,' & ' .'9 . 6
' = '?& * +,' & * ' ? ' +'@<* - < ' <*+. - .' .'
& -(')+< ' & * +,' ' 1 0 &' .' & ' - ' +,' * 6
/+7 ' 6 + .'?& -&'K? * ' * .' ' . - ' +,' & *' 8 ,
0&')+66 ,, + *' .' & ' 1 ' +,' * 6 ' & *' 44\\
.' .7+- ' . .'<*+. - ' ' G - + '+,' & ' .' 66+ .
. .' & ' 7 &' 0& & ' &' &' &* &',+ * &
.' ',+ * &' . ' +,' *-&' 9K 78@ ' * ' . *' &
& .'+,' 3 +*0 ' 20 7 ' / '& * .' / * 0' & ' & ' .
3 +*0 ' 20 7 ' / '& * .' '-+66 .'+,' & ' .' = *
+,' * ,+ ' * , .' ' & ' , - ' +,' & *' ;@ '\ .' .7+-
0 ,' & ' .' . , . *' .' / '7 * ?' & * +,' ? ' + ' +,'
& *' * 6< *' Q' ? ,,' & * +' / -* 7 0' <
<+ ' & ' .' 7 &' . ' +,' *-&' +' & ' 6 *- ' -*+, '+,'
)+ < *' 'J , '& .' / *0&'+,' & ',* , .+6 ' & * +,' .' <+ '
& ' . 0& '. ' < &X' 6 *- ' -*+, '+,' J+*, *' & .' / *0&'+,'
& ',* , .+6 ' & * +,' .' <+ ' & ' .' &' . ' +' & ' 6 *- '
*+, '+,' / *. ' .' <+ ' & ' .' &' . ' +' & ' 6 *- '
-*+, '+,'> 6 ,,' .' <+ ' & ' .' &* &' . ' +' & ' 6 *- '
-*+, '+,'1 0 '+,' J+** ,' .' <+ ' & ' .',+ * &' . ' +'
& ' 6 *- ' -*+,, '+,' I * ' .'9 7 * ' * G 7 4 .' <+ ' & 8
.' ',+ * &' . ' +' & ' 6 *- ' -*+, '+,' * &' & .'/ *0&'
+,' & ' '* , .+6 '0K+,' .' & * ' ' 1(' '+,' & ' .' -*+- '
G G 7' .' -- , 7 ' ' & *' ' 6 ' Q' &+* '? &

$ & *' -+ ' +,' *6 ' . ,< .' + 8' +,' * 6< ' .' + & *'
K + 6 ' * F , ' .' - ,, *' +< ' <*+- 6 + ' .' N &'
-'* . 0' +,' & ' .' 6+ .' +,' * ,+ ' & ' ?, '-& *0 .'
& '& ' < *,+ ' /+7 ' .' , *' 6 + .' 7 8' +& 'R -+ '
+,' ' . ' 6 '1 * ' +,' ' 6, *6 0' R ,-+ ' +,
J* .* 0&' =+*.' ' (.' 0+*' : 6' 3* & 6
+,> F & < ')+ + ' G . *') ' +& ') .' +,'
J ,(' ')+ ' -C S ' - ' +' & '1 * K' +,' ,+* & ' *'
+& ' '* 66+ .' +,' -& ' : 6')* ?, *.' + 0 *' +,'
. 6 ' 6 ') ?, *.'& '/*+ & *' 5+/ * ,+ ' +,
+? ' ' 7 .' 3 & 6' /*+ & *' +' & ' . - ,' +& 'R ,-+ '+,'
' . ' ,+*' & 6, ,' .' ' * <* , 0' & ' .' 'R ,-+ '
E / * + '+,' - **' .' E / * +
& *' 6 '1.6+ , + ' +,' I ? + ' +,' '+? ' *'1? '
) 6 *+ '+,'=+-& ') 6 *+ '& ' . ,',+ ' '+ .
.+ .' + 0 *' +,' - ' & '= *.'+,' 0& + ' 4
3* '+,'> . D+-&' ? *'+,' << K
(' ' .+ .' . *' +,'3 -+ ' GK' .+ .' +BK+,'
3 0 * ' '+ .' '+,'3 & ' .' *' +& ' % 0' +,'
'+? *' .' .7 * '+& *' & *' ,,+- 'Q' --+6< - ' .' '
+ & *' & ' -- , +*' +,' -&'+,' & 6' ' *' . .' .' +*'
.'- * +*' ,' & ' '& 7 ',+*' * , ' +' & 7 ' -+6< * .'
/ ,+*' & '& 0&')+ *' +,' * 6 '? & ' & ' * '&+ , '+,'
1.K' <+ ' & '. ' < * - * '6 + .' ' & ' .' 66+ . '
.' & '& ' 6 .'- * , - + ' .' ,, G'Q' , ' & -('.+ / '
? &' ' ,'+,' & '? ,,' 'Q' <+ '2(' '+,' & ' .' 6 *- '
-*+,, '/ ,+*'Q' '<* - '+,' & '? ,'K6 + .' ' .' /'"
,-* 7 0'? ,,' +' & ' .' G - + '%+0 & *' ? &' + & *'
G - + ' . *' & '& .' +,': 6' 3 +7 *' 5+ & '& * .'
/ * 0' & ' <+ ' & ' .' 0&' &' ' ,+ * 'Q', , '
. '* G 7 '+,' & '6+ &'+,' *-&' @' 78@ ' * & ' .8
: 6' 3 +7 *' +' & 7 ' '-+66 .'+,' & ' .' 66+ .'+,'
* ,+ ' ' & ' , - '+,' & ' .' *' +& ' ' * 6< ' & *'
8 , ' .7+- ',+*' & *' & 0& ' * ,' 0 ,' & ' & , '"
, . * ' /+7 ' 6 .' .' & *' --+6< - ' < , '? &' ' *6 c'
< *' <+ ' & ' .' 0&' . '+,' *-&' .' *' +,' 3+.',+*, .'
+' & ' 6 *- ' -*+,' +,' = *(' & .' /6 0&' +,' & ' , * , .+6 '
& * +,' .' <+ ' & ' &' . '+,' *-&' Q' *' +,' 3+.' /+7 '
?* ' +' & ' 6 *- ' -*+, '+,' *' & .'/ *0&'+,' & ' , * , .+6 '
& * +,' .' , ' <+ ' & ', .' &' . '+,' *-&' Q' *' +,'
3+.',+*, .' +' & ' 6 *- ' -*+, '+,' 9 7 * * ' & .'/ *0&'+,' & '
, * , .+6 '+,' *0 ' .' <+ ' & ',+ * ' . '+,' *-&' Q' *'
+,' 3+.' /+7 ?* ' +' . ' 6 *- ' -*+, '+,' 5 ,* ?' & .'/ *0&'+,'
& ', * , .+6 ' +,' .' <+ ' & ', , ' . '+,' *-&' 4Q 8, *' +,'
3+.',+*, .' +' & ' 6 *- ' -*+, '+,' * 0' & .'/ *0&'+,' & '
#, * , .+6 ' & * +,' .' & * ' ' 2(' '+,' & ' . '-*+, ' * G 7 '
.' -- , 7 '9 ' & *' 6 ' .' &+* ' & ' .' : H
6' 3 +7 *' 5+ & '& * .' ?, ' 66+ .'? * .' .'
-& *0 .' 2('+,' & ',+* 6 .'< *,+ ' /+7 ' 6 .' .'+ & * '
-+ .' ' & ' 66+ .' +,' * ,+ ' .' 2(' '+,' & 6' .' & '
)- , +* 4+,' -&'+,' & 6 ' * '. .'/ ' + .'+,' * 6< ' &* '
7 ' 6 '? &'. ,< .'-+ '/ '+< '<*+- 6 + 'Q'< / - '
* . 0'+,' & ' .' 66+ .'+,' * ,+ ' .' , 0'+ & *' + 6 H
' - ,, * ' +'-+6< *'/ ,+*' & *' 8 , '& 0&')+ * +,' * H
6 ' +'/ '&+ . '?; ' & ' * 6 &+ , '+,'1 .' ' K'- * '
. '/ 0+ ' ' & '&+ *'+,'- , '?;'-+ + '+,'. ' +' & ' ,H
, - ',+*' & '- ,,' Q'6 . '- * , - + ' ' ' G<* ,' ' & ' .' 6H
6+ . '+,' * + ' .' ,, G' .' , ' '8 , ' .' & -(' -+< '
<+ ' (' '+,' & ' .' 6 *- ' -*+, '* G 7 ' .' -- , 7 ' <+ '
& ' . '* G 7 ' /+7 ' < - , .' +0 & *' ? &' ' , '+,' & '? ,,'
6 ' / ,+*' .' ' <* , - '+,' & '? ,,' 6 + .' ' . '
4; 0 .' ' & ' G - + ' .' / -* 7 0' ? ,,' & * +' ' & '
. ' G - + '6+* ', '/ * '%& * , *' & ' .'3 +*0 '20 7 '
/ '& * .' .' & ' .' : 6' 3 +7 *' 5+ & '& * .'
?&+' . .' G - ' & ' . '= * ' +,' * ,+ ' .' & '? ,,'
, * ' .', /,-* 7 0' ? ,,' +' & *' .' G - + ' * G 7 '
,+*, . ' -+6< * .' < *,+ ' ' <* - '+,' & *' 44 '& 0&'
)+66 ,, + *' .' & '1 '+,' * 6 ' .' , *' < / -

3 * ' +/ 7 '+ ' (& * 6 ' * ' / ' & * ', -- ' , /*
& ' . ' +& ' R , + ' +' ' +* & 6 , ' . ' ' $ 3 * & 6 '
/*+& * + & ' .'R , + ' +* & 6 , ' . ' ' * Q ' , -- ' , /*
+' & ' , ' R , + ' & ' =+*.' ' (. ' 8/* : 6'
3* & 6 ' +' > F & < ')+ + ') + +& ') ' +' J
J (' 6 ' 1 * ' +' ' 6 , *6 0' R , +
1 * '+' ' 6 , *6 0' # R , + '+'J* .* 0& '
)+ + ' G . *) + ' ' +& ') ' +' J (' 6 '
3* & 6 ' & 7 ' /*+ & * 8+* : 6' 3* & 6 ' +' > F & < '
<*+7 ' 0 ' & ' .' +& ' R , + ' +' ' . ' N' ' 7 .'
?&+' ? * ' *6 ' * & ' .' ' ,, - ' . ' ' 7 * ' .' '
. '+' ' 9U 78_ 0& ' ' * +* 8+ .' ? & & ' * / '
? * ' - ' ' *6 ' 0 ' & * 8 ' ' * & ' ,,+ * &'
> D . E+-& %& ' ,, ' .' & * / ' . ' & ' ,+* .' -* 6 '+' '
* ' + ' ' ' ' ' + .' * 7 7 8' & ' & ' ,+* 6 .'< * '+ '
+ ' ' ' ' ' + 0 * +' ' . ' ' * Q' ' ' '

. 6 .' ' * + * ' .' +' . * ' & '< '+,' * ,+ '
7 *' & ' & ' / ' <<* & . ' .' & ' ' , -&' 6 ' .
< - ' Q' ' -&' 6 *' ' & *' 8 , ' +*' & ' 1m '+,
* 6 ' +*' & ')+6 6 , < - ' +,' . - * ' & ' <<+ '
.' +*. ' & ' .' < *,+ ' & *' 6 ' , 6 ' 6 6+* ' Q
&+ + * ' +' / ' G - ' & *'0/ ++.' +' / ' .' .' & *' *6 0
+' / ' * 7 ' , * &' Q', '+ ' +,' & ' /++(' +,' *6 ' +' & ' & *'
<+, * ' 6 ' 7 *'& 7 '< - ' +*' / ' / '& * , *' +' /*++(' +*'
8+ , ' '&+ + * ' +,, - ' ' +*' . 0 ' ' 6 ' -+6 0'
.' &' . ' < *,+ ' 6 . ' /+7 ' 6 .' +'& 7 ',+*, .'
6 .' Q' ' ' .' .* ' & *' . ' & * .0 ' -('
. . 0' *+ 6 '<+ , , + '0++. ' .'0 *' 6+7 / ' .' 6 6+7 '
/ ' ?& ,+6 7 *'< * 0' +' & 6' +' / + 0' +' & *' 8 . '
.' +'* 6 '< *< '? &' & 6' .' & *' -- , +* ' '<*+H
< * '?& -&' ? ' <*+ + - .' ,+*' .++6 ' .' ?& * <+ ' & *'
8 , ' .7+- ' ,(.' .' ++(' , * 6

52%1 % %92 I' / ') < ')& * ' * + ' ' & '
,+*, * '+,' & ' 'R -+ '+,' ' . '

DI%2' E ' 3* - ' %& *' 8 ' & 0&')+6 6 , + *'
.' & '5 0& ' E+ + * / ' 1 ' +,' * 6 ' %& '
E 6/ ' << - + '+,') <4)& * ' * + '
E 6/ ' & ? &
%E %' 0' / ' ' - '+,' & ' 6 0' +,' 1 ' ' ' G '
<* , '<*+7 . .' & ' & ' ?, L'-* . +* '+,' '< *,+ ' & '
' 5 / + ' +*' ?&+' 9& * , ' &+ .' & << ' +'/ ',+* , .'
&+ .' + '/ '<* 8 .0 .' / ' & *' . / +* '* / + '+*' .++6 '+,'
,,+*, * ' +',+ +?' & * <+ ' .'4 + *'< + *' / 0' -* . H
+*' +' & '. - ,'R -+ '+,' ' . ' ' & ' + c '+,',7 ' &+ H
.' 6 *(' / * 0' * ' / ' ' /+ .' . .' 7 * ' * '
/ ,+* ' & ' '& << '5 7+ +
' ' & *,+*'< ,' + *' 3* - ' .' E+ +@' 1 '+,' '
* 4' +' (' & '<* 6 ,,' +'-+ . * + ' .' +'+*. '
& ',+*, * '+,' & ' .'R 4'+,' ' . ' +' / ' / *. .'
? &' & ' 8' 8 ' .' , '. / ' .' + *' + *'
& ' 7 *'<* 'Q-' $

)& ' * +

' ' 4 1.K' ' ' 9' $
E9`` '& 0&')+6 6 , + *' .' & '1 ' +,' * 644' '
& 7 0' & *.' & ' > ' ? &' & ' /+ .' ? & ' 6 + .'
, 0 ' & *+,' ' , 7+* '+,' *+7 .' 5 ' .' 6 + '+,'!
& ' 6 ' .' * + ' / ' & ',.' *+7 ,' ' , 7+* '+4,' & '
< + *' ? &' & '< + * '<*+ , + ' +' & ' ,, - '? & '
* <* .'%& ' . 6 ' & ', .'<*+ + ' $
)5 JD5 ''

0' , ***' D=99' + , ' 7

1%9%92 I',+*' *' 6 '5 6 ' 0 ' & '1 * '+,' ,+* &

DI%2' & '3* - ' E ' ' & 0&')+6 (+ *' .' & '
1, '+,' * 6 ' %& '< + '+,' 4' 6 '5 6, '
+,'=+0 ' ' $
$ E 6/ ' & ? &
%E %' ?& * ' & '< + '<* .' / ' & '< *' 0' & '
1 * '+,' ,+* &' & 7 0' / ' * -+6 6 . .' +' & ')+6 6 '
+,' 1 - + '?&+' & 7 ' (' & '. <+, + '+,',+6 '? ,, ' '
& * ' .' & * '/ 0' '<+ ' & ' - ,, '6 ,' / '<*+7 ' '
/ ' & '1 * '+ &' ?&+' 6 ,' / '- .' +' & ' ,, -' .' -+ , . *'
0' & ' '<*+/ / ' & ' * ' 6 ' .8+ * '/ ,+*' & '. '
+,' & '- + ' G< * '?& * &*+?' +4' < Y *' 6 '9+,,' ' & '
_G< ,)' & '& ' / ' '& & * ' .' '& '6 6 '? '
* , '+,'c& ' - ,, ' & '<* , ', * '& 6' ,' & ',&+ .'
/ '* *. .' ' & '<*+, + '+,'& ',+'8 '- 6
' ' & *,+*'< ,' + *' 3* - ' .' & ', '+,' *H
' +' * ' +4' < Y *' ,, * ' +' & ')+6 6 , + '+,

* '& ' & ' 6 '-+0 +,- '<8 <+ ' .',+*' & ' ,, - K
& ' +4' 3* - ' Q' =+< ' 0* ' ? ** .' ,+*' - 0' & '
1 * '+,' ,+* &' <+ ' ? ' ' . '? * 0' ' & '
6 *- '-*+,, '+,' 1.4' .' < * ' Q',&+ * '+,' = &' / - '
& * ' ' +' ' -- ,, ' +' -+6< * '/ ,+*' & ',.')+6 '
6 , + ' +8 . <+ ' <+ ' , -&' < * ' **+0 +* ' '
& '6 6/ * '+,' & ')+6 6 8',& ' & (', ',+*'- * 0'
+,' & ' ,, * '? &'- * , - Y ' Q-' .' +4' < Y *',& ='
7 *'<* ' ;'

$ 1. '9 444 ' 9
E9 ' '& 0&')+6 , + *' .' & '1, '+,' * '& 7 0K'
-+ , . * .' & '< + ' & '* 6 ' +' & '-+6 , + 6 .' '
& '0 * ' - ',+*' , ' .',+*, +4 \' +'-+ , . *' & '6 *K'
? & ' ' .' +' * <+* ' +' & G ', , + ' +,' & ' +*'
'+ & *' , 0' * 6 ' .' 0* '? ** .' +' 6 ,, '
' *6 ',+*'- 0' & '? & '1 * ' +,' ,+* &' + ' ? '
+ ' . ' +' & ' ,, - '? & ' ' * <* , .' .' & ' ' & '
6 *- ' -*+,, '+,' ' 0? ' & .' / *0&' +,' & ',& * '+,' 5+, ' '
? & '?& -&',& N' & ',.' 1 * '& '& '<* , '* . - ' Q' ,'
Z' / ' +' ' -- ,, '< +' & '& .' / *0&' +,' , ' 0& /+ * '
0' 9& * ' '* ,8 - '& *' ' +' ' -- , ',+*' & '< *,+ '
+' / ' 6< + .' / '& '< + *' ' G - ' & ',.'- +' '
& '< - '?& *' & ' +?' .? '

)5 JD5 ''

)%' ', 7+ * '+,' ' 7 .' >*+. '+,'= &

%+' & ' 3* - ' & ' 8 ' & 0&')+6 6 , + *' ._'
&+ + * / '1, '+,' * 6 ' ' 7 .' >*+. '+,'= & 6'
E 6/ ' &+? &
%E %' 9 / 0' ' & ' *' ' ? ** / ', .'/ ' & '
=+*. ' + ' .' %&+6 '% +-&' + 0 *'+,' % -& '& '. < '

' ' /' ' ',' ,-+ ' 6+ ',+*' .0 .' + -+ ,+* , N'
?& *<,' G' % +-&' . *' +,' % -& ' ' .+ +*8' G - .'
/+7 ' / , * 'e = (& '. - ,' G' >*+. '+,'= , 6'
6 /*+ & *'/ 0',+*' & ' (' - ,' 8 ', .' 'J /* * '
' ',,+ * ' &+ , .'<+ .',-+ ' .' ' , , ' < * ' 6+* '+,' '
< '?& *+ ' .8 . P Y ' .' + & *' . 0 - '/ 0' .' & '
= *.'+,' 3* ' ' & ,.' G >*+. ' . , * ' . .'< ' &* '
&+ , .'<+ .' '-+6<+, + ',+*' & ', .', ' +' & '1 * ' -,,'
* &',+* ?& -&' & '* -+7 * .' & 1 * ' . ,-& *0 N .'+,' ?& -&*'
,+ 6 '9' . ' & * , *'* 6/ *,' & '= *.'+,' 3* ' .', 0'
/ ' ' -'+,' & '<* , ' * 6 ' & ,' .' ', -&' # ,, 8 '
. -* ' ,+*' , ' * '* ,- . .' .' & '< * ',+' , .' +' / '
* +* .' ,< - ' 0' & '.+ +* ' .'7 + ' *+6 +*
' ' & *,+*'< ,' + *' 3* - ' Q' =+< 'B +' 0* ' ? *H
* .', *'- 0 & ', .'=+*.' ' + ' Q' E +6 ' .' G '
% E+-&' 2,' % -& .' D ' & ', .' 1 * '+,' * &' c@
-+6< *' / ,+*' + *' 3* - ' Q' =+< '+*' '+ & * '& 7 0'
-+6 6 , + ' ,*+6' & ' * 6 ' ,+*' & ' ,, - ' <+ '
. '? * X' +' & *' Q' , ' & '<* 6 ,)' 7 * j
$, .' Q' <*+7 ' .' +' & *' Q' , ' & 6, 7 '. - * .' +'
* ,+ .' & ',+*, . ',+ 6 ' * G 7 ' ? &' -+ ,' 9(& ' D'
. 6 .0 ' .',+*',6 6+ . 0' ? ,,' Q-' --+*. 0' &G
8 , - ' Q' + *' 3* - ' Q' =+< ' ,? *

1.4' ' ' 9
% E19 5' 8 , '& ' 2+6 6 , + *' Q' & '1, '+,' * 64' '
& 7 0' & *.' Q' -+ , . * .' & ' ?4 '< @' & ' .+ ' 0* '
? ** .' & */ +' - * 'Q' 6 , 0 * ' ' *6 ' +' - ' & '
?4' . , 0 .'< *,+ ' +' << *' / ,+*' & ' * 4' +*' -+, '
6 ,, + ' Z ,' <<+ .',+*, 'Q ,/* , . * ' +' ,? *' +' & '
< , ' , *', , ' . '0N & ' / '- .'< +' ?4 - * , - Y '
' @

+ /

. -'& ' & , ' <* . .'0*+ .' , .'? ** .' & * +,'
+'/ ' -F , . * .' '$ *8 6 ' & ' + *' <++*' < + *'
' +'/ '. ,* . .'+,'& *'8 '* 0&'+,' - , + ' .'
/ , ' & * +,'+*' & ' + *' 3* -' .' =+<'? ' / '
< , .' +'* 6 ' &' < +4' - , ' +' & ')+6 , + ',+*'
, ' .',+*, *' .' + *' <++*' < + *' & '
7 *' <* 'Q-' 4

' ' '

%E19'5' 8 , ')+* 6 , + *' .' &' 1, ' +,' * 6 '
.+'5 6 ' &' < + ' +' &')+ , + ' <<+ .'/ ' &'
* 6 <',+*', ' .',+*, * '? &'<+? *' +' & ' +'
- ' .'& *' &'< * ' .' +'5 <<*' +' & ' G', , / ' +,'
&'+*' '7C ,; , 0' * 6 ' $
4' ')5 JD59N4

51 9%' ', 7+* '+,' : 6')& '?* *' '1

DI%2', '3* -'%& *' '&0&')+6 , / *' .' , '
%&* '1, '+,' * 6 ' K' : 6')& '?*' *'
'1.
E 6/ ' & ? &' 4
%E %' + *' < + *' & &' '<*+ , ' . < . 0' / ,+*' &
)+6 '+,', ' 0 ,' *' : 6' *,+ '+,'3* + ' .
+ & *' '&', 7 * D'< * - *' 6 + ' ' &')+6<
07 ' & * '?& -&' & &' / - E .' .'< * '& *.
& * <+'/ ' ' ' +'/*+ 0&'+' '-+ - , +
' ' & *,+*' < , ' + *' 3* -' !'=+' +'0* ' '< *
' - *' *, *$ -' +,'& ', .')+6< '? &' &' $' *' Q
* < ' 6 .' & +' +' ')+6 , + ',+*' , '
+6 ,'/ ' & '&+ + * / ')+ *' & ' & '6 '-+ . *
.' .7 ,' &', 6 ' .'6 '07 ' ', *. *' & * 0' <
D?#B'K ;# ' = B#'#B 'K; ; ! ' = '#?' < " '#B ;'; K?;#0
0 [?!'#B ;' ?K = ?='#?!'#B 'K; =#?;' = F#! ! ?=' ?!' / ;8 %
6 * ' .' +' 0* '? ** ' +' - ' &' . , . *' .
+ *' < + *' , ' 7 *' <* 'Q-
$ ' : ')& ,
5G>'6' 8!0' '*=B'A
%E19,' = 'E 0&')+6 6 , + *X .' &' 1, '+,' * '
' 6 '.+'5 6 +' & 3+6 6 , + ' <<+ .',+*', ' .'
,+*, * ' +')/ , . *' & ' < + ' .' +' & *' &' < * '
& * ' .' +'5 <+*' +' & ' G', , + '+,' &8'+*' '7 & *
, 0' * 6 '
#' #4 ')5 JD5''' e

51 9%' ', R+*'+,' 6 ' 6< ,' + 0 *'+,') &- *

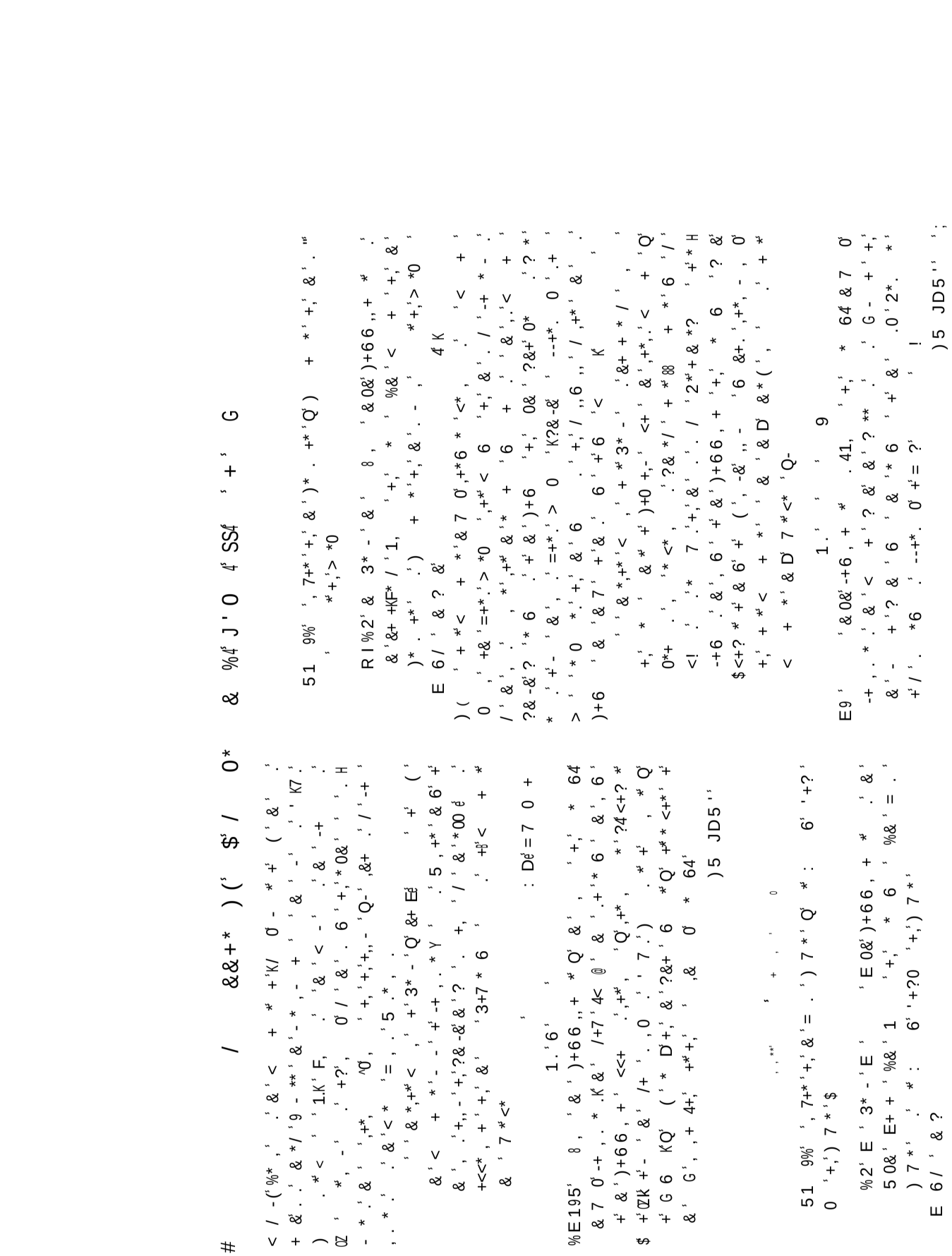
%2' & '0* -'& '&0&')266 ,, + *' .' &'* 0&'
&+ +* /' & ' , +,' * 6 ' 6 ' 6< ' + 0 *'
+,') &- *
f
'E 6/ & ? &4
%E %'?& *' + *' < + *'/ 0' pR, <*+7 . .'/ ')+6'
6 ,, + ',*+6' &'. - ,' *' %&+6 ' ** '+,'3 +0') *('
5 0 , *',+*' &' 6 ' +' &'+,, -'+,'/ 0' &'. < ',+*' (<H
0'+,' &'5 , *',+,'5 7 *, + ' .' , '? & ' &'/+ .'
.', *'+,' &' & ** ,, .+6 '+,'5 ,* i'5 0 '+,' ,
5 0 '>*?0&' .'> **+ '+,'3 ,0+?' .' & '. * 0' '
&'. '+,'6 ' , 6 ' '6 '0 ,' .' +66 ,, + '. .' &'
G '. '+,' '9K78', 7 ' 0&' * '& *? &'<*+. - .'
> * ' +? &, . 0'?& *+,' .' & '9'& .'8< ' ',+ 6 '+,'
6+ ',+*' &', .0 ,' . +,, -' .4? '&'<+, , + ' & *+,' H
' &'6+ &'+,' *'9U'78@1 0& ' ?+' * ' & '9'? ' &*?,'
,*+6' &', .'+,, -',+*' +' (0' +,'&'% ' * ' . &'
, .'+,, -'? '07 ' +' + ' +& ' +&* 'P +?'. - ,Z ' <H
< *' / ' &', .' +& ' +& ' &')-C 6E + ' .' . ,-& *0'
0* .' +'6',+*' / 5 0 , *'+,'&', .' +,, -' /+ &' & * ? &'
<*+. - .'& * ' .' 0' & ' &', .' +,, -' .' , '? '
0* .' +'6',+*' 6 ' , ' .' & '9' . .' +? ' 6 7 *, '
& * ' ' << * ' / ' &', +*, .')+66 ,, + ' .' . ,-& *0

1 '+,'&'5 0.+6' +'/ '* .* , .8 ' * 6 '%& ' &' +'
(0' +,' ,, - '-+ *,D' +'5 <* , '&' ' <* . + ' .'5+/H
/ * '/ ' &'E 0& .') ' ' '3* 7 -' .' 0' &'& * '
+*'+,'& ' ' &* '+,' ' 6/ * + ' *'/ '* +'+,'& *') +'
.' 0&/+ *&++._6+*' < - 5' & * '-+ - * .' .'& ' + *'#
< + *' & &' 7 * ' +7 * + * 4 +' <*+<+ ' 8' & *' / & , '
$pR&-& 6 '/ '7 * '-+ . -7',+*' &'5 <*/, 0' +,' &' .' . '
* . + ' .'5+// * ' 4
' ' & *,+*' < , ' + *' 3* -' .'=+' ' * ,< -' &'
& ', , + '.+&' +?'<*+/ / ' .* ?' +' '-+, ' +' * , **'
&'< + *' ? &'&'+7 * + * '& '&' ' +'6 (' +'&'
' ,, -',+* .' +'&)+6 , + '+,' * 6 ' & !'& '6 '
'& *' - 7'<* < *' .' * <+*' '&' 6 ' +'&' G', , '
+<'+,' * 6 ' .' + *'3 F' .'=+' < + *'
, ' 7 *' <*

6' ' 9
%E19'5' ')+66 , + *' .'&'1, '+,' * 6 '.+'
$5 6 ,' +'&')+66 , + ' <<+8 6 .',+*', ' .',+*, * '
+')+ , . *' &'<) ' .'?& '&'< + *'& 7' +'<*+'
<+,' ' &'6 *' % '6 + .' .' +'* <+*' +'&' G'
, , + '+,'&'+*' '7. *' , 0' *
)5 JD5''' 4

51 9%' ', 7+* '+,' : 6'=7 &0, + ' :* *' '1.

%2'& '3* -'& ' 8 , 'E 0&')+66 , + *' .'* 6 '
'6 6/ *'+,'&'6+,'&+ ,'Q'E 0&')+ *'+,' * '
%&'& 6/ K'< + '+,' : 6'=7 0, + '?* ' '1.'
E 6/ ' & ? &' 4 4
%E %'&' .' : 6'/ 0' .6 .'- *(+'&'9 -+*<+* '
+ '+,'&' * ')& << '-+ , , 0'+,' ,, '7* 0& '< * '
< 66 * 'Q', 7 * D'+ & *' * '-+ ,+*6 '+' '-'+,' .6 , + '
'&', 7+ * '/ * 0' .'7 6' '- < * ' .' . .'-+ ' '
&'<+, , + '+,'& ' .'+,, -',+*' &* ' B' D' & ' *' :'
$?& '&'+ &'- .'&'% '? '96<+, .' <+' ' < *,+ '+,



* '%&(' $'% &'/ &&+*)('* '% &'/ 0* & %' $'1*)'2*00* ' +'

T3'&& ' r' 0+& ' %'&+* ') 4' / *0', ***47 + , *

(⫴ K; 8'6' 9 G.

'% &'+C" '?!' < #?='#B ;' # 'BAB' ?<< !! ?= ;

/ & ('8 ' 0 0

% &'0?; ' 8 ;"'& A !# ;'; '#B ;' !# '@?<< !! ?='?'#B '
.'2 88 <'+C" ' !' < 8#@ ='#?'B?8 '#B '!?C;#B'! !8?='?!'#B '
@C;; =# / ;8 <7

' "!!,'42!!-5

% &' & ;8 '?!'$?;! ;' =⫴ = B '?!'#B ' ;NC ! '?!' +?CA8 '
K;?# !# '!?;'#B '"#$' ?# '?!' / ;/' 9 88' ?#B ;' /;?# !# # ?='
B>'#B '! '& 98 ' ='= < '?!'#B '& ;8 '?!'(C#B ;8 ' A!# 88'
#B '& ;8 '; =" 'B !?;'B <' & ;8 '?!'0 =8 #BA?⫴2'K;?# !# ' ='
= < '?!'#B '& ;8 '?!' ?FDC;AB' < =?;' A!# #B ⫴ & ;8 ' K!'
0?#B = ' & ;8 '?!'0 ='K;?# !# ' ='= < '?!'#B '& ;8 '?!'
$ =8 # ;' & ;8 '?!'0 ='K;?# !# '!?;'B <! 8!' A!# #B '& ;8 '?!'
88 = ;' ; ' ⫴ $; =@ ' ?=#A?< ; '< AB# B ' F@C! '
='; !K @# ?!'B ' = D 8 #>'#?' #; 88' ; '-7 #B '0 ; '?!'
); =A '< AB# D ' F@C! '='; !K @# ?!'B ' = !K?8 # ?=' ; '
-7 / #; @"' 2 ' @'< AB# D ' F@C! '='; !K @# B ' '=9'
A ;?C88>'8 @"' '0

% &'0?; ' A !# ;' ; '#BB' & ;8 '?!'T%E ' 'K # =# '
B =@ 88?C;

0&%%& '!;?<' B ' !#>' ; @# '#?'#B ' ?<< !8?= ;'A =A'
⫴J?B=!#?C='#B 'K; 8 A '?!' ! ## =A'Q' ?# =A' '! @; # ;>'?!'
!8 # ' ='#B '! !8?='?!' / ;/'; ' ⫴

4'% &'0?; ' A !# ;'K # =#'; ' '='! ?C;'?!'#B ' !@?C=#
?!'% ;D # / # =# #?'D '0?; ' ?@ # ='! ?C;'77! (;'J < '
(# E ;#'; '7 / # =# #?'D '0?; 'JC!# @ ' 8 ;"' ='! ?C;'?!'#B '
0 ;'?!' ;< !#?C='; ' 0 0

% &'0?; ' % ;D # #??"'#B '? #B'?!' 88 A =@ '# = ; 'D>
7 #B '07' B =@ 88?C;'%'#B '0?; ' (@; # ;>' ?@ # 'JC!# @ ' 8 ;"'
#??"'#B '! '? #B '# = ; 'D>'#B '0?; ' 8 ;"' A !# ;'Q'; L
K # 'D>'-I'Q' B =A'8 A= '#B '! < 'Q'#B ' !8C; =@ 'D =A'
; 'E '8 A= 'D>' 88' 8!?'#B '? #B' # " ='D>'#B '& ;8 '?!'
8 88'0?; 'K; '! 8'Q'! A= 'Q'#B '!!C; =@ '8 A= ' *='8 " '
< == ;'#B '? #B'Q' !8C; =@ '# " ='Q'! A= 'D>'#B '& ;8 '?!'
=# #B'Q'0?; 'J DC;AB' !# ;'; K # =A'?!'#B 'E?; '# = ; '
>'#B '0?; ' A !# ;' *='8 " '=8 = ;'D>'#B '& ;8 '?!Y(8" ;"'
8!#'' =!#?C='J ;E !E?? '%' !# 88B 88' '8!?'X ?;A ' ;? '
?!' >= '@?<< !8?= ; '!?;'#B '*B ; '?!' =A#?C=' ;E @"
0'0 = ;@"' Q' ;=' 8!?' (;' ;@B⫴7' C ;'!?;'#B 'DC;AB' ?!'
?CK ;' 'D' (;' 8 F⫴ 'A;C@ '!?;'#B 'DC;AB' ?!' (=N' #??"'
Q' 8 A= '#B '? #B 'Q' !!C; =@ ' 8!?' 8 F⫴ J?B=!#?C=' ?!'
&8! !8 ' '!?;'#B '!8 ; '?!'+;C<!; 'Q'J?B='+ @"'!?;'#B ' C;AB'
?!'(#;8 =A' %B ' !!C; =@ '! A= 'D>'#B ' +C" '?!'3C =8D ;;>'
& ;8 '?!'0 =8 #BA?E' & ;8 '?!' == = 38' & ;8 '?!'1 =#?;' & ;8

+,'>*+ . /+ '=+*.' 5+,,' 5 & R ') *.*+' ' ,, '> * '
6 'J -& *' E ?'>*+ ' ' 6 ' 6+D 'C / * ,+*' & '
9& * '+,'> ' +& ') 6</ ') <' +,') ** -(',+* *0 D& * '
)* 0+ ',+*' & '9& * '+,' ' / * + ' ' 6 '20 7 ',+*'
) ' 6 'C *6 ',+*' & '> *0&' +,''* 6,* ' ' '
6<,+ ' ++(' Q',0 .' & '+ &' Q' ,, * -',+*' & '/ *0&'+,'
J+* *+ ' ')& , '5 -('Q : 6')+-&* ',0 .' . '
, * -' ' ',+' & ' ?' 6 6/ *'M -+ ,+*6é +' K ,0' ++('
& '+ &'+,' *& 64

E9' 8, '= *'+' & ' *& 64' ? -'* .' E ' 8, '-+6H
6, + *' 6 . ' ',< -&' +' &0' * 64'Q' *, ** .' +' & '-& H
- + *'?&+' , *? *.' 6 . ' ',< -&'Q' 6+7 .',4' ' , *'
6 0&'/'6 .' +' & 'C 0'9*'Q' 4 '-+6 6 ' / ' <<+ .'
+ '+,'7 * ' , 'Q' & 'F , + '/ 0' ?& & *' ?+' +*' + ' +,'
7 * ' , '- ** .' +'/ '+ '+ '+,'7 * ' ,

%E1' < -&'+,': 6' ' ('+,4 E 6 + 'E ' 8)'
'E 0&')+6 6, + *8' +' & ' * 6 '+,' -+ .
'=+*.' .'3 6
A2D' & 7' & *.' E ' 8, '= *'?& * 'E ' G<* ,, ' '
0* '. '+,'3++. ,', *' D ' .'< * - * ' & 'E ' +? '
+ *' 0' ' * 6 ' ' & ' 6 '.+ ', +?'E ' * '
)+ , . -' ' + *' ,, - + +' E 6' .'E '3+7 * 6 ' +?'
, / ,& .' ')& *-&' .' '?& -&'E ' 8, '& ' * , .'
6 ' +' ,, * ' + 'E ' ', *6 '* ,+7 .' +', <<+*
9' & ('9' .' +' *0 '6 -&' +' * 6 6/ *' + '+,'P '
' 0 *' .'J *' + '? * ' ' /+ ' ' *' 0+'+,' '9 7 ,+ '
.' & ' 6< '+,'1 6 ' 'E+6 '9' 6', * ' & * '? ' & '
+ ' & '? & .'? ' +' & '3+7 * 6 ' / '? ', ,, '
-+ 7 - .'+,' & '/ .'<+, ?*'? ' : *' ',+*'+ *' ' , - ' .'
?+ .' & 7' / ' 0 .' +,' & '2<<+* ' +' & 7'< '+ * '
, 7 ' ' '/ *')+ . + ' 0 ,' & '?+*,'17
+' 6 '=+*.' .'3 6 ' = ' ' '&',*,'< - '* '
E ' 8, '+ *'& * '%& (',+*' 0* 0' ' & ' ,+ '+,'
* 6 ' .' ' ' ', .' 'E ' .' 6+, ' .'
7 * '& 0' ,'& ' 6 '+/,* -'+ *' ,? * 0' E ' 8, 0'
1G< - + '?& * / ' + '? ' +' + ' '& ' : +* .' , '& '
1**+* '+,' &+,' & '? * ' 0 ,' + *' 0' / ' ,+' . ,'
<<+ ' + *' 1 6 ' & '?+ .' * . *' + *' 1 . 7+ * ' '
, -- , , ' .', - ' + ' - ' +' G< -' & ' +' / ' ' + 0'
,, + +,' * 6 ' E ' 8, '* -+6 6 . 0' +' + ' ' , '
< -&' %& * ,+* ' 6 '=+*. ' .' 3 6 ' 9' / , -&' + '
/ 0 '? &' & , ' 0' & ' * ' 6+,' - ,, * ',+*' & 'C 0B'
*7 - ' .' + *'+? ' - * '?& -&'9'8 .0 ' +'/ ' & '0 7 0'+,'
<< '+,' + ' .' & '< 0'+,' & 'C 0.+6' ' '<+, * '
+,' ' , - '
%& ')& - +*' ? '<*+<+, ' +' + ' & ', ' &+. ' +,' + *'
*+- . 0 0

d % &‘(K @B‘?i‘#B ‘& ;‘8 ?i‘%E 8 ‘4 O?; ‘ AB‘ B =L
@ 88?;‘4 #?‘#B ‘ / ;‘8 < =# ?i‘(@?#8 =
0‘ “+5;‘27Ğ -73i- . -7
% &‘ 1 =A‘ i# ‘B #B‘< ‘ KK ;‘ ‘ ;‘?i‘#B‘ 2 8i ; ‘4
KK = i ‘4 = ‘ (@C; #>‘ ?i‘ #B ‘ 1 =A ?<‘4 D>‘ @ 88 =A‘ >?C‘ #?L
A #B ;‘4 EB =P <i 8i‘ ‘ i?‘ = @ ii ;8>‘ DI =# D >?= ‘ (‘4 #B #
>?C‘ < >‘ K;‘? 9i?;‘ >?C‘; ?E=‘ (i #>‘ = ‘ /;?iK ; #>‘ = ‘
B #B‘ iC88>‘ =88;C@# ‘ ‘ ?<< 88 ?= ;‘4 #?‘ @?=@C;‘ E #B‘ >?C =‘
EB #i? ;‘< > ?=#; DC# ‘#B ; #?
*‘ i8 88 #B ; i?; ‘ =‘ 88 C= 8 #>‘4 = ‘E #B‘ (CD< ii ?=‘4 KC#
>?C‘ =‘< = ‘4#B # ? =A‘ 88 = <?i # ‘ = ‘ iC= ;!# = =A ‘4
>?C‘ < >‘ KK8>‘>?C‘;‘i 8 ‘E #B‘ ‘ = = < #>‘ = ‘ B ;!C8 = i ‘ #?
>?C‘; 2 ?;‘“ = ‘ Ci = i ‘4 EB @B‘ ‘# “ ‘#?‘D ‘ =‘#B‘8 ;!# K8 @
%?‘KC# #B ‘ 1 =A ?<‘ =‘ ‘/?i#C; ‘;‘?i# + i =@ ‘ A =i# $?; A=‘
*= i ?=‘4 = ‘?i‘(@C; #>‘ A =i# *=# i# = ‘ ?<<?# ?=‘ 7
%B =‘D>‘ < “ =A‘?i‘ iC@B‘A??‘ 0 E ‘4 ‘< >‘# = ‘D?#B‘#?‘#B ‘
(##8 =A‘?i‘/ @ ‘4 = ‘ ‘ = #>‘ =‘#B ‘ BC;@B‘4 = ‘#?‘#B ‘(#; =A#B9‘
= =A‘#B ‘ C#B?; #>‘?i‘#B ‘) ? ;!=< =#‘ = ‘i?;‘ @? ;>‘ = ‘
i =A‘ #B ‘ %; ‘?i‘#B‘ ‘ # ?=‘4 i?‘ <C@B‘ @ > ‘4 =‘ #?‘
C = ‘ B=?i#‘4 = ‘< “ =A‘ # #?‘i8?C; B‘ A =
‘#?‘#B ‘ ?=@ ;‘= ‘?i‘#B ‘ BC;@B‘4 ‘i?D ;‘ = ‘NC # % =NK ;‘
?i‘ =‘ ‘i?;‘ >?C‘; (i #>‘ = ‘ (@C; #>‘4 ‘ @?<K # =# # ?= 8
0 = ‘i?;‘ >?C‘; (i #>‘ = ‘ (@C; #>‘4 ‘ @?<K # =# # ?= 8
$?;@ ‘#?‘EB # >?C‘B ‘4 E #B‘ 4iC# D8 ‘$?= ‘ #?‘< =# =‘#B <‘4
= ‘ i‘ #i8 88 D ‘#B?CAB# i #‘4 #?‘ i # ‘CK‘ ‘ ?C=#; >‘ 8 # ‘ A =‘
#B? ‘ <Ci# D ‘ #B?CAB# ?i‘i?;‘ #; =‘A‘ #B ‘ <‘4 E #B‘ 8 i ‘
%;?CD8 ‘ = ‘&FK =@ ‘#B =‘B #8‘D =‘i?;‘< ;8>
= ‘i?;‘ @X. ;.i‘?i‘ %; ‘ 4 = ‘ (CKK?;‘# #B ; ?i‘ =‘ # < ‘?i‘
2 ;‘4 # E 88 D ‘E?;‘#B>‘?i‘ >?C;‘ <?i# 8 D ; # = ‘i ; ?C ‘ ?=99
iC8# # ?=‘ 4 #?‘ i 88 CK?=‘ #B ‘; i#‘B = ‘i?;‘ &ii @#C ‘# =A‘ #B ‘
i < 4 ‘B?E‘i < ‘(B k ‘?i‘ 2 ;]‘ ?i‘ @?<K # =#$?;@ 4 #?‘ i = ‘
?C;‘ ? i#‘i;?<‘ /; # ; ‘4 = ‘ #?‘ ?#‘ ?>?;‘ ;‘ ;@B =#‘ (B K 4
#B ‘ / ;8 < =# E!8‘K;?‘ ‘B 8 =A‘ = ‘B KK>‘/ ;8 < =# -
@“=?E8 A< =# ?i‘ EB # ‘B #B‘ ?= ‘i?;‘C 4 = ‘D>‘#B ‘D8 i8 =A‘?i‘) ? 4 ‘D8 ‘iC#
#C;‘=‘#?‘#B ‘ ;‘ ‘B #B‘?i‘C 4 = ‘D>‘#B ‘D8 i8 =A‘?i‘) ? 4 ‘D8 ‘iC#
d %‘

? *' '+&' ** ' 6 ' 6 &',' 4 .* ?'Q'3 +*0' 6 &',' ? 6'? *'-&+,

1%9%92 I',+*' &')+ '+,' & * .' 0,' &')+ '+,' : 6'G .Q'&')+ '+,' : 6' +*. * .' +'/'- .' +', ' Q' , *'+',* . ' G'/ 0' & B' , '4

25'151''&'&' '+,' 7 *' . * '/',0 .'/'& =+*.')& - + *' $ '

%E1' *,' .8+ * .' '&'6+**+?' ' ''-+ (' '&',+* H ++ ' $ 4 ' ' 4 $ 4 %:11'' =1') - ' 9 ''

<*' ' &

%E1'5+ '- .

25'151''',4' &') <4 +,' &'0 *.'?&+' .'6'=+*.')+66 ,+ *'/' +? .' +'/'<* , '6' &'&+ ,' 4

*-(' ' / *' +,' -&* 6+*' (- .',+*' &'4, ? * *' +,' C*(- ./*0&' '< -'+,' : 6' 3+*.+ '+,')* 0'. , .' ++(' &'+ &+,' D .0 -'Q',0 .'&', 6'Q' ++(' &'+ &' +,' *4Q',0 .'&' ,, * -

6 ' , -'Q')& * ' 2 <& ' - *(' ++(' &'+ &' +,' D .0 -' '< ' *4Q',0 .'&',%* -

A'=+*.')+66 ,,+ *'+*. * .',4' &'2,, - *'+,' '/' . . .' +' &')+66 '-&+, ' , *. '-+ ,+*6' +' &' -'+,' *4

2R15%D51'07 ' '/'& ' 8 , ')+66 ,,+ *' ? -'* .' -+ - * 0'6 *' +'/' /*+ 0&' ' +' &')+66 ''+'/' 6 .'?&-&'6 ' ('+,' &', /8 -'+,' , *. '. / ' <*+<+, 0'6 *' '0 * L' +*'< * - *' +' &')+66 '+' ?&-&' '? ' 00* .'Q'&',*,' * - '+,' &'6 6+* '+*'+7 *H * '0 '* .' ' D/' &'+& *' * - '* 7' +' &')+66 H '+,', << 'Q'< 0' &'C 0.+6' ''<+, 6*'+,'. , -

M 1 259 ==

20' * 0 *.'+,' &'. 0 *' & ' &* ',*+6',+** 0 ' 7 +' .' +& *? ' & *' ' 7 / ' - , ' +,' 6+*' . 0' ,+*- ' ?&-&' * F *' . . + L' << ' .' & *,+*' ' '-* 7 .' & ' ')+66 ' 6 '/' <<+ .' +'-+ . . *?& ' '/'&'F '+,' &+,' << ' .' '?& '6 *' & ' 6 '/' .'+' .' 6+,' ' .' * . ' 7 .',+*' & *' < 6 ' .' ' 6 '/' * , ** .' +' <' 6')+66 ' +' <*+7 . ',+* < 6 ' +,' &' ** *' . ' +' &')+ *' .' *6 ' .',+*' ,? * 0' &'+& *' - , '+,' &'3+7 * 6 %& ' '6 '/'* , ** .' +' &' 6')+66 ' +'-+ . . *' &+?' &'C 0.+6'6 '/ < ' ' '/ *' <+ *' +,' . , -' 0 '. 0 *',*+6' /*+ .' .'&'0* *' - * '+,' &'3+7 * H 6 ' .'< -' 6+ 0'+ *' 7 ' & *'/' ?'5 0 + ' +,' &' '+*'/' ?'5 0 + '+,'7. '(+? '. '+,' &' E * +*' Q' , -/' 6 ' '- - '+,' 7 +'+*' ** - + ' (? '&+?' <+ ' &' +-- , + '< * + '. ,, - .'6 '/' - * .' .' & *' *6 '&+*, ' .'&+ , S . .' '6 ', *. *'/'* , ** .' +'<' 6')+66 '+'<*+7 . ' 0 ,' '-+** <+ . - '?4' J* - . * 0' &'? *' ' +' '* 0 *.' &' -'6 .' /+ ' &'+ &' +,' .0 -' .' , * -' *' ++'0 * ' .4' &'- * , - + '0, ',+ .' +'/' ,, - L' +'-+ .. *' 6+*'< * - * ' +'?&+6' &'+ &' +,

7/ ##?='!?;'J ='?C=# 7?!'(C#B ;8 = ' = '#B '& ;8' ?!'(C#B ;L 8 = 'B ;'BC D = '!?;'B '=# ; #' = E ;'!?;'#B ' ?C=# '?!'2 <> 4' J8 K8> '!?;'#B ' ?C=# '?!'(?C#B ;8 = 4'Q'+CK8> '!?;'#B ' ?C=# ' ?!'2 <> ' ;'K; ; ' <?=A'#B '2 ;; =#'?!'#B '/ ;8 < =#

D .0 -' .', * -', + .'/'< ' .'&+?' &'- * , - H + '0 ,' &'*, *'6 '/'6 .'6+*' ,, - .'&'+' &, ' &' . ' . -' -'6 '&'<* < * .' .' &' &')+66 '<* < *' .'/* 0' ' &' .' -' +'< ' * 6 '+ ' , *' +&* %& '&*'/''')+66 '<<+ .',+*'6 (0' .'* - 7 0' <*+<+ ',+*'&'.7 - 6 ' .', - * '+,'*. ' .'/* 0 0' ' -',+*'&' .' .'&' '6 '/'*, ** .' +' &')+6H 6 ''+*. *' +'&'< 6 '+,'&' ** *' . '+' &')+ *' .' *6 ' .'&' &'?+*('+,' &',+*6 *')+66 '6 ' +' /'* *. .' +' (' ' .' '&' --+ '+,' &' .' ** *' .'&')+66 '6 ' +'K-+ .. *'&' '+,'&')',+6 ' 7 '&' G 6< + '+,'I+/ 6 ' .'3 6 '0++.'6 '/' . ,-& *0 .' .'&' &')',+6 ' +,'0++.' - , *' . < *, + K'6 '/'& 0& .

0

' <* '

37 ' '/'&'=+*.')+66, + *'3* - 0

)R1''bN4 '/'*, ** .' +'&')+66 ' +' ('* '&+?K &'6+ ':' << .'?&-&'? . , ,/'&' *4',+*'< 0' # &'- 'Q'&' ** *'+,'&' *6

2R1''&'&'6 */'*, ** .' +' '+&*')+66 '*' * ,< -'+,'&'0* '/ , '?&-&'? ' '/ ,+*'&',.')+66

25'151''<4 '- ,'/'/*+ 0&' +K'&', 6' 6+* ' '&',.' ** *' +'/'* 6 .,+'&', 6 0 * D')+66 ' Q'<4 &')+66 '<*+- .' ' &'<* < * 0' +,' - ' '&' 6 &+.'+,'&',.'6 6+* '?&-&'? *' .'Q' 0* .' +

52)11'1''+'* .K &' * - '* 7' +' ')+66 ' +,'* .

2R1'' &' '&')+66 ',+*'&', - * '+,'&'C 0.+6' &*'/' ',+* -&'1, Q', 7 ' '&')+66 ',+*' * .

3511'4'<4 &' 6/*' '&')+66 '&' --+*. 0' ' &'<*+<+, 'Q'<4?*'-&+, ',+*'&')+66 ',+*'&', - * ' +,'&'C 0.+6',+*'&' +/ '1 * '+,' *0 ')* ?, *.' = 7 ' . '=+*.'5+,,')*.*+')*6-& '5 &7 'Q' + ?*'Q',+*'&'/ ** ' *?,?++.'= 6 0+ ' 8+*'E ?' > '> *-*+, ' / * *-&D'3* ' 0 &'>*+.')+D+.' Q',+*'&'/ **+?' 4 6 '20 7 ' 4 : 6'E 6 + '4 +éE ' 4 *-&;. * G' < ' G') 0& *' 3' * 0' '5+éE) .' :k'E 0 'Q' <+' &')+66 ' +,' * .',+*'&' I+/ '1 * '+,'#3 - * '10 + ' =+& '=.'%+*<& -& '> *0 '> & 7 '5+ +'Q',+*'&' / **+ '> -(/ **+ ' + +-('C / *')* 0 + '5 . ' ' ,+ ' ? + 'Q',+*'&'/ **+?' 6 'J -&*+& ' . *,+ *' ,+*'3 ,-+?' ': 6'1*,(' ' 6 ' 6+ 'E ?'>*+ ' +& ' *',+*' *'3 +*0' + -* ,':& -&' +6 + '+,'&' ?+')+66 '? *'* .'Q' <<*+7 'Q'&'6 8+*'< *'+,' -&)+66 '. - * .' 'F +* 6'Q'&'+,,- *'+,' '+'/' .. .' +' -&')+66 '-+ ,+*6' +'&' -'+,' *4

M51 9%%'+,' * 4'+'&')+66 ',+*' - * '+,'&' C 0.+6

1.'&'? ' ?+'. '+,' <* ' ' %E195' 'E0&')+66, + *' .'&'1, '+,' B ' 6 '.+' +6 ' .' <<+ '&'< *,+ ' , *' 6 .'+'/' ')+66 ',+*'-+ , . * 0'?& ' ' - , *' +'/'.+ ',+*' , - * '+,'&'C 0.+6'78' %& '1 * '+,' *0 ')* ?, *.' = 7 ' .' . '&'=+*.'5+, ')*.*+')*6-& '5 &7 ' .' +? *',+*'&' +/ ' %& '= *.'+,' *7 , ' ?++.'= 6 0+ ' 8+*'E 0&' > '+,'C /* .' G

Q' ' / ' ' ' ' &' - *(' & . ' &' 6 6/ *' 6 '& 7 '
, ,< - + ',+,' $ ' $

25'151''Œ4 ' &')+66 _'6 ' ',+ *' - + -(' '&'
, * ++ ' & '. ' $' ' '
0

25'151''<4 &' '+,' -&', . * '+,' *4' / '* .' &'
G'. '+,' *4' / ,+*' '/ , '/ ' (' +' -+ , . * +'
. & '& '/ '& ',0 .'/ '&'=.')& - + *

%E1' *4' .8+ * .' '%& *,. ' G' ' ' - + -(
4%:11'' =1') -
9' ' '' *

' <* '

' G4' 4(; S 'Q' 4' 6 '1<& 0,+ ',+'9& * ' : *'
)+-&* 'Q' C &' (<S ',+*' / *0&' . .' (' &'+ &'
.' '&' %* -

%E1'1 * '+,'1**+ 'R,-+ 6' */ '5 ,-+' Q' : @')+ * '
,0 .'&' ,, * -'

%E1'1+ - .

%E1' +*.' %& , * *' . < '<*+ , .' 0 6,'- *0' &'=+*.
-* *' 5 0, *' Q' .7+- '/ ,+*' & 6' '&'*+ '+,'< * 6

%E1' '+,'&' ,', . * '* .'Q +*. * .' 4' &'
-+ '+ '&' - 'Q'+*. - '+,' * '/ ' +'?& ' ' +
00* .' +' ' * ' G- <'?& ' * 7 ' *'7+ .' 4

%E1'* <+*'+,' &')+66 ',+*' - + '<* , ** 0' *'J* - '
-+ '-+6 , + ' +' & <& 0&' <<*+7

%E1'* <+*'+,' &')+66 '* .'Q'* 6 .'Q'+*. * .',4',4 '
+ -'/' ('+,' /, '+ 'Q' +'+,'+'/ 0' F , .'/'
+' (0' & + &

%E1' * <+*'+,' &')+66 ',+*' &', - * '+,' &' I + '
-'* .'<*+<+, 0' '* 0' '.. + ',+*-'+,' +'* 0H
6 '+,'.* 0++ '-+ ,+*6' +' &' , / , '+,' &'=+*.'
./* 0&'* 0 6 'Q',+ *' * 0 6 '+,',,++' -+ ,+*6' +' &'
, / &6 '+,'> -& '* 0 6 'Q' 0N4 0N4 /' ',+ .',+*' 4
6 -

?& -&' ' +' / '< .' ' &* ' *6 '7 8' : , . ' G'
* 6 ' G' .': , . 'TP CG
.', * & *' & ')+66 '-+ , . * 0' &' G< - '+,' &'
7 ' +,' &' &+*, ' &' / 0' +,' *6 ' &' , * 2 0' +,'
0 S '&' ** * '. '+' &'-+ * ' .' *6 ' .'7 & *'
-, * -& *0 '9' ' & *' +< +' &' &*'/'<+ '6+ '
6<+, .'?& -&'6 ' G .' +',+ * ' &+ , .'<+ .' * 0
53A==' =' ')

1.4' ' <* '

%E1'1 '+,' * 6 '& 7 0'-+ , . * .' &' 5 <+*'?& -&'
/ ', 7 * ' 6 '* .' & ' <<*+7' &',* *< *' & *+,'
78' & ' ',+ .'/'* , .'$, ,, - ',+*' 6 0',+ * '* 0H
6 '+,',++' *.' ?+',' .* 0++ '-+ ,+*6' +' &' , / &'
6 c?4' 6 + .'/' .' + *' &' <* , ' E . 0'
',+*- ' .' &',+*' + ' *'Q' '&' ,',*+6': & , . ' G'
.'-+ '&'-+ , . * +' +,' &' * E' h,'&'5 <+*' _'
+' &', 7 * ',+ .'+ '+,'?& -&' &',+ 6 ',+*' 6 -'
+,'&', .',+*- '9&+ .'/'* , .'7 D' &' G'. '+,' * 4
%:11'' =1') - e
' 9' ' '' *'T

9%' / 0' . , * .'/ ',+6' 6 6/ *' & ' '< < * '* 0' +' &'
<* , ' . 0 *' <*+. - .' +' &' .+66 ',+*', - * '+,' &'
I + '/'* .'Q'?& -&'? ' --+*. 0 '.+ ' . & '< < *'
'< ' ' &'- *(' & .' +' ' <+' &' /

M81.4 ' <4' 9>
: 1'& 7', ', ,, - '.+- 6 ' +' 7 -'Œ4'. , 0'& &'
/ ' .' '- ** .'+' /+&' &+6' .' /*+ .',+*' ,, - 0', -&' '
. , 0 '?& -&'& &' '<*+- . .',+', *'Œ4 . - * + '& 7'/ '
-+ - * .',+*' & '< *<+, ' .' &'* 0'+,'6 ' 6 0'+,' &'
+,, - *' +"-+66 .' & 6' * ,<7 .'+ ' .'* -+ - + '6 .'
6+ 0E' &'. ,, * '< * '+,' &'. , , - .' .'+' <*++, ' *'
< 'Œ4 &' 'C 0' 6 ' * E' & &'/ ' ' &'/+ +6 '+,'
&' '. / ' ' &' - + '+,'1. / *0&' '+'?& -&' &'
'C 0' 6 '? '. , * .' +' *<+, '&8' &+* '/' *'
,*+6' & 'C 0.+6

6' <* '
$%& '< < *' <*+. - .' ' * 6 ' . * . 8

4 M8%E1'5 <+*'+,' &')+66 ',+*' - * '+,' &'C 0.+6

%E1' T<66 '& 7 0'-+ ,+*6' +' C'* , * - '6 . ' +' & , '
-+ . * .'?& ' . . + ', << '?D' /'* F , ',+*' '
6+*' E . 0',+*- '?& -&' *' - , * ' + / ' 7 .' .+'
& 6/ '+,, *' ' & *' +< +' & ' ',+ .'/'* , .', / ' .'
, ,, - ',+*' 6 8 6 0',+ *' 5 0 6 '+,',++' -+ ,+*6' +' &'é
, / &6 '+,')++ '9> -& '5 0 6 ' .'?+'5 0 6 '
'+,''* 0++ ' -&'+,' & 6'-+ ,+*6' +' &' / &6 '+,' &'
=+*.' ./ *0&' 5 0 6 ' .' & '/' .' + *' &'<* , '
. 0',+*- ' .' &' &',+* .',+ .'/' '6 -&' '6 4
6 ' &', .4',+*- ' +'/' 7 .',/*' ' *' .' '
&,'/ 0 0' '&' *6'+,': , . ' G
.', 0' &',+ 6 ',+*' 6 , 8< -'+,' &', .',+*- '?D'
G .' +' + '& .* &', 7' &+ , .'<+ .', * &0' 6+ '
. * 0' &', .',< - ',+*' < 0'?& *+,'9' ' & *' +< +' & '
& *'/' &* '< ',-+ '+,' .. + ' G- ,' 6<+, .' 7<+ '
-&'<Z6'+,' .'/ *',+ .'<.'7 . .'?& -&'8 '-+6< '
+' * ' +' & * ' &+ , .'<+ .', * 0' < *' 6' +'/'
< .'F * '?& -&' ' * .'' & ' 6'?D' G .'
+',+ * ', 7' &+ , .'<+ .' * 0
.' (? ' & ' '6+ &'- , ' .' '& , '6+ &'
/ '6<+, .' G . 0' +' G '&* ' &+ , .'<+ .' * 0

20'*=,

%E1' -' 6 *- 0' &' =+*.' ?&-' ? *' /, ' .' +' G- .' ? '* .' .'/ 0'< ' +' &'7+ ' <<*+7' &' -' +*' +') *H * .' ' &' ,,*6 7

I '' &*, *' &' -' 6 *- 0' &' /, ')+66, + *',+*' & * ' .'> *0&' .' <<+ 0' ?' - + ' ' &*' * G7' < - ' ? '* .'< ' +' &'7+ 'Q' <<*+7 ' ' ' #

%E1I' &' -',+*' &' .. + L' G- ' ? '/*+ 0&' 0 ' .'* .' ' 6 . .' .'/ 0'< ' +' &'7+ ' ' ? ' <<*+7 ' .'+*. * .' +'/ '< / & .'Q'<* .

%E1'< + ',' 3 +*0 '1 *',' 7 ' .'+ & *', 6 .',+' & ')+66 ',+*', * ',' &'C 0.+6' .' +'* <+*

%E1' -',+*<* 7 , 0', '6 , *' .',* 'F * * '+*. * .' +'/ K-+ . * .'/ ' &'6 6/ *' .' +'/ '/*+ 0&' ' .' &' G', 0'+,' * 6

$ 4

51)2 1I '1'' +' &')+66 ',+*' - * ',' &'C 0' .+6' & ' &'<*+- .' +' F *' ' &'& *&' 6+ ' .' $ &* '6+ &') ,' <<+ .',+*'< 0' &' ** *'. ' +' &')+ * 'Q' *6

%E1'1 *','10 0+? ',*+6' &')+66 ',' * .'6+7 .' &' ')+66, + *',+*' & * ' .'> *0&' 6 0&'9 6 ' +' ' ?&+6' &'* <*, ' +'07 ' ' --+6< ',' . / '. ' +' & 6'/' &',+*- ' +' * .'07 ' ' & ' &'-+66 ',' * .' 6 0&' ' &' 6 ' 6+ 0' &' + & *' --+6< ' ? &') * , - +

25'151'' & '&')+66 '6 ' ' ' &'6+* 0'+' *. ' .' ++ . ' .'& '6 '=+*.')& - *'/ '+*. *' .8+ * .'& ' * ' '% . ' G' ' ',' &'- + -(

%:11'' =1) -'

9^ ^' *D

4' 'P ;

5 A15' .

%E1'5+ '- D .' .'&' / '6 *& .

5+/ *')* 0',' 5 -- * + ' - .',+*' &' & * ',' 1 .' '< - ' +,' ' 6 ' J+? ' +,')+ 0 + ' & 7 0' (' .' /' ,-* 7 .' &'+ &',' .0 - 'Q' /,-* 7 .' &' , 6 - ' .' (' &'+ &',' *& 6 '? ' .6 .

+& ' . *,+ ',+*' &'> *0&',' 9 7 * * ',, * 0' +' /,-* 7 ' &' , * - ' .' &'=?.')& - *' & *? &' -F .'

4 4

%E1'F , + ' *+, ',' &'/ 0', .' ' /, ' .' &')+6' 6, + ',*+6' 9 7 * * '. - .'7+ . '/' ' - ',' & ' *H 6 '6 .' ' /, ')+66, + *'-+ .' ' '* <*, ' 0' & '> *0/'? &+ ' ' ?')+66, + ' .' &' 6 *' / 0' ' &'. / .K' &'R+ "? ' .'*, '+*' .6 ' .'- ** .'*, '> '&' G- ,' ' +'& ', '? ', , .

%E1'< ' . *' & *' '3* B L' +' &'=+*.' + ? *4' -* 0'&6' '=+*.'+,' *& 6 '* .'Q' +*. .' +'/ '* H -+*. .' $' 4

%E1'1 * '+,'C - *. ' .'R,-+ '+,'C 0 + ' G- .' /'&'3* -' & *' '&0&')+66, + *',+*' & *' +' .H 0' &' * 6 ' '* 0 *.'+, & *' ,*6

%E1',+*6 *. ' '? *' & '* .

%E1' -' 0 ,', ,'6 , *' .',* 'F * *' 0 '* .' .' 7 D' 6 .6 ' *.' .. / '6 .'&*+' .'/ 0'* .' +7 *' 0 '? & &' 6 .6 ' .' .. + '9'? '< ' +' &'7+ ' .' <<*+7

25'151'' & '& -&'< + ' '? * '+*. .'+'/ ' ? * .' 0 ,' &' . '/'-+ .' ' & * . ' G

%E1')+66 ' <<+ .'+'6 ' ' ' '-+ -(' +'6+**+?

%E1I' &'=+*.')& - *'/ '+*. *' .8+ * .' &' * 6 ' +' & * . ' G' ' ' '-+ -(

%:11'' =1) -E'

9e5e'e * e

E ' ' 0

5 A15' .

%E15+ '- .' .'&' /, '6 *(.

%E1' -' 0 ,', D'6 , *' .',* 'F * *' + -& .'? &' & - < *' .'+*. * .' +'/ '< /=T .' .'<* .'

$ $

%E1',+*6 *. ' '& '* .

%:2') * , - ' <+' + ' .'-+ - -' +,' &' . <+ +*' +,' &'=+*.' = .+*'Q' I * ' . *' &'& .'+,' & *' <& ' ' .' <+ & - * '/ 0'<*+. - .'Q'* .' & *' /, -',*+6' * 6 '? ' G- .'/'6 '=+*.')+66, + *',+*',+ * ' . ' +'-+66 -',*+6' & '.

52 2 = '/*+ 0&' ',*+6' &')+66 ',+*' - * ' +,' &'C 0.+6',+*' * 0'<+ '6+ '* .' .'* 6 .'/ -(' 0 ' +'/', *. *'-+ . * .'/' &')+66

'I1:'<*+<+, ',+*' & *&' 6+ '07 ' '/'& '0* -' 6 ' =+*.'& 0&')+66, + *'* .' .' (' < +'/', *. *'-+ . * .

%E1' .* 0&' +,' ',, *' .' -' +,' * 6 ',+*' 7 0' &',+ *'* 06 '+,',++' .' ?+'* 06 '+,'.* 0++ '6 H + .' ' &',+*6 *'7+ '+,' * 6 '<*+<+* + /',*+6' & ', 7 * ' & * ' .'> *0&' 07 ' '/'6 '=+*.'& 0')+66,H + *'* 06 '+,',++' .' ?+'* 06 '+,'.* 0++ '6 H + .' ' &',+*6 *'7+ '+,' * 6 '<*+<+* + /',*+6' & ', 7 * ' & * ' .'> *0&' 07 ' '/'6 '=+*.'& 0')+66,H + *'* .' .'*, ** .' +' &')+66 ',+*', * '+,' &'C 0' .+6' +'-+ . *' 'Q' +'* <+*

%E1' -' ' &') * 0' .'< -(0'+,'& ** 0' ., 6+ .' /*+ 0&' ' 0 ',*+6' &')+66 '+,'%* . ' .'* .' .' , *' +6' 6 . 6 ' '? ' 0 ' * .' .'< ' +' &'7+ ' .' <<*+7

25'151'' & '& '&**,, ' .'+ & *' , *+*'># '&7' ' . < + ' +' ' .'. - ,' - + '+,'* 6+7 0' +? &H . 0'+,'& ' 0'+,'& ' * 6

%E1'< + '+,' 0 ') * </ D',+*' / 0'& *' +' -F * .'-+ * -'? &+ ' &'-+ - *,' +,'& *' & / .'* .' .' ? ** .'0* .',+B*' - 0' &'& .'< *,+ '+*' '& ' .? 0'< - ' .m+*' '< / (' 6 + ' & * +,' +'& ')* .H +*' ' &'6 *- ')*+-'+,'1.'< *' .'9&+ *'+,,= &' +' , *' <+' & ' G & . '+,' ' ,

%E1'< + ',+*' 9*7 '+,' * ',+*' / 0' &' .6 , * ' +*'+,' &'= *.'/,' '* 6' , ' +' ' '< *'+,' ',+*' < ' $6 '+,'& '. / '+'* . 6' &'- ** ' .8 . - + '* .' .' -+ .4 ',* . ' &' &' ,

%E1'< + ',+*') < '> 6 '+,'> ,+ *'* .' .'*, ** .' +' &' -+66 '+,' - + ' .' +'* <+*

%E1'< + ',+* &*'> *0&',' J+* *+,'* .' .' &')+66, ' + *',+*' &'9& * '+,'5+,'+*. .' +' *' 0 ,' . ' G' 4

%E1')+66 ' <<+ .'+'6 ' ', 7 ' '-+ -(' ' &' , * ++

%E1I' &'=+*.')& - *'/ '+*. *' .8+ * .' &' * 6 ' ' ' '-+ -(' +'6+**+?

%:11'' 11') -'

9^ e'e * e

Contents

Introduction 1

Chapter 1 12

Chapter 2 27

Chapter 3 41

25'151''' & ' ')+66 '6 '<* - , ' 'm G' '-+ -(' & ' 0&' ' '-+ -(' +' 6+**+? '6+* 0' .', G' '-+ -(' +' 6+**+? ' 0&

%E1I' &'=+*.')& - *' /'+*. *' .8/ * .' ' * 6 ' '': . ,. ' G' ' ''-+ -(' ' ' $

%:11'' =1')- '
e' 'e''' *=e

4 '

5 A15' .

%E1'5+ '- .' .' &'/, '6 *(.'
#c !' $',

')15%9J9) %'+' + ' .'-+ - -'<*+. - .',+*' &'1 * ' +,'3 +? '+,'&' . <+ + ' 88.' &* <+' &'1 * ' /, -',*+6' * 6 ' G- , .'/'&' 3* -' &'=+*.'&0&')+66, + *' K

%E1' /, -'+,' '' - ') 6</'+,' -& /* +(' '<, &')+66 + *',+*' &' &*'+,' *0 ' G- , .' (? ' ' *,< -'+,'&'= . ' . <+, + '

1R15 =')+< '+,'6 '+,'&'<*+- . 0' ' * 6 ' ?&-&' &.'/ ' ?* ' .'. < * .'-+ * *' +' &'+*. *' 07 '&* '?*'<*+. -.' .'&* <+'+*. *.'&', *. *' F *'/'6 .' +'&'6 *' .'? +,'& .'?* '&,' 6 ' * ' .'&')+<< '< ' '&'- *('& .',+*' & ',, -

$%E1',+*6 *'. 8' , '& '* .
$4 4 $

2R1''/'& =+*.')& - *'&'&*/ 0' 7 * L' 6 '
'+'/+ *.'&', '+,'6 *-& .'&<'<* '0+ 0' +'E+ .' 6+*'&'&'+*. * ' 6/*' +,' 6 '- , *',+*' 0' -&'&< ' &*' 6 0&'/' '+*. *' +,' * 6 ',+*' 0' -&' 6 ' '&+ *' .'&'+*. *' --+*. 0'0* .',+*' & ' ,, -'+/' G- .'/' ': 6' * (8 ')+66, + *',+*' &'/ *0&',') &+, 4

I1' -',+*' (0' &'+ &',' .0 -' .', * -' >*+ 0&' ',*+6' &')+66 ',+*' - * '+,'&'C 0.+6' .' * .' .'&'F , + ' * 0' ,'.+- +*'+,'6 .- ' & '/' - . .' ' &' -' *' + '9'? '< ' +' &'7+ ' .'- ** .' ' &,' 0 7 ' .', ' 7 * ' 6 .6 ' 00* .' +' %& ' F , + '? ' .'. ' &', *. *'-+ . * + '+,'&' -' +' &' G' 0'+,' * 6 '+*' + ' .'- ** .'. '

$ $ $
' 1%9%92I'/'&'=+*.' +'? *',+*'* -+7 *'+,'?* '* .
.!' '? ** .'0* .',+*' '- + ' & * <+' 0 ,' '
< -'& 7 *'+,'&' ?8 ^' +'-+6< *'/ ,+*' &' * 6 '+'
G. '? * 0' +' ,? *' +' &'< +
' %:11'' =1') -
9e e'e * e

#B >'

5 A15' .

%E1'5+ '- .' .'&' /, '6 *(.

%E1'= *.'+,'%+*?++. ',+*' &' & *'+,' (*(' &'= *.'+,' C /* ',+*' &' &8 '+,' * ' ': 6'>*+. ',+*' &'/ *0&' +,'J<** , ' ' 6 ' -+?0 ',+*' &'/ *0&'+,'C +* ' .' ' 5+/ *'J+*/ ',+*' &'/ *0&'+,'9 7 * * ' D')+66, + *' - .' .'* * .' +' << '&'7 -- - ' '. - * .' & 7 0' ('&'+ & ' .', /,-* 7 .' &' .0 -' .' , * -'? *' .6 .'-+ ,+*6' +' & *')+66, +

25'151''' & ' &'<*+- ' 0 ,'&'& * +*'+,' &' & *'+,' J+*, *' -+ 7 .',+*' +' 6 0' +' - ' .'?&+' & 7' +' ('&'+ &',' .0 -' .', /,-* 7 .'& 4', * -'/' . .' D' &'? ' G&'. '+,' ', '
4 ' $
25'151''' & '6'=+*.')& - *' 0 ' '? ** .',+*' &' ,* &+. *'+,' &' & *'+,' J+*, *' ?&+' & 7' F E .' & 6' 7 ' +' -' & *')+66, + *' +' &' * 6 ' <+' &' &* '. '+,' ',

'51 51 1I% %92I1'/'&'3* -' & *' '&0&')+6H 6, + *' .'&'= *.'+,'1 *(' * .' ' -+ .' 6 ' .' ' : 6') 0& 6' +,') <* 0+ ' <*, ' 0* 0' +' G&/ ' &' / -(& .', ' &' ., - '? *' *, *7 .' 0 ,'. 7 * ' .'&' +*. .' +'/B * .' +'. / ' & *H <+' 0 ,'9,, ' ? ' G&'. 'K+,' ',

' 1%9%92I',+*' .* ?' J -& *' +,' / * .' 0 ,' &' = *.'+,'> -(/ **+ ' .'+&*' +*. .' +'/', ' .' ,? * .' 0 ,' &' ? ' G&'. '+,' ',

1%9%92I1',+*' &'1 * '+,'' .+ .' .'& ' +*' 0 ,' &'=+*.'> *'+*. .' +'/' ' .' ? * .' 0 ,' &' ? ' G&' ,

1%9%92I',+*' +&' & *<'+,'E+.. 6',+*' / . 0' '/*.0' +' &' : *'+,' .'+*. .' +'/' ' .' ,? * .'/' &')+66, + *' +,' ' 6,* ' & *' 0 ,' &' ? ' G&' &, '4 B

% ',+*' 6 '6 *- ' ' & +? '+,'9*7 '+*. .' +'/' ' .' ,? * .'/' &')+ , + *',+*' &' &8** '+,' *'+*c '-+ - * .' 0 ,' &' ? ' G&' ,

1%9%92I',+*' %&+6 ')* ,+? ' 0 ,'MM G . *0' : (' ,+ '+*. .' +'/' ' .' ,? * .' 0 ,' &' ? ' G&' '

1%9%92I',+*' &' C *(' , + '+,' &') + 0 ' 0 ,' &' 0, * '+,' &' +? '+,'1.' +*. .' +'/' ' .' ' ,? * .'/' &'0++.' +? ' 0 ,' &' ? ' G&' , ' 4

1%9%92I1',+*' +&' ('+,'E *.',+*' '<*+ - + ' ,*+6' &' -* . +*' * .' .'&' -* . +*' +*. .' +' ' .' ,? *' 0 ,' &' ? ' G&' ,

': 55 I''',+*' '- + ' <+' ' < + ',+*' ': 6' E+0' 0 ,' &'= *.'+,'9 &. * '0* .' 0 ,'' &' ? ' G&'. '+,' ',

MM: 55 I''',+*' - 0' G . *' + '+,'9 -&. *
$' f
%'1. / *0&' &' &'. '+,' '96'78' .' '&* ' * '%+'&'3* -' & *' 8 'E 0&')+66, + *' .'&' 1 '+,' * 6 ' '&'< +'07 ' '/' *0 * ' : *. ?' .' *' 5Z/ *' +' &*'& / .'6 + 0' &'9' &' .' *0 * ' : *. ?' '* -'+,' &'. - '= 7' '3 * '5 &7 '&7' +'+ ' &'&, * *'* 0&'+,' &' .'+,'C * ' .'+&*' 'J , '/ ' &*+ 0&' &' . - ,'+,' .* ?' : *. ?'6 '/*+&*' 9' 6' +'& *'+,' &' 6 .' .' &, ' .'/ 0' ,, - .'? &' '-+6<* , 0',+*' &' +7 +'+,' ' &+? .'6 *(' .' ' &' -'+,' *-&/ .'; *' /*+&*' +' &'= *.'+,' 5F0 ' .'&'* 0&'+,' &'-+6<* 0' &7 0', '/'<*+0*,*' +'/ + 0' +' 5+ &'&'&*' .' 7 * '+,' &'/0+ ' * ' +'/ + 0' +' +'+,'9 -&H . * ' ' G - +*' *' : 6' E+0' ?&+' &.'6 ** .'+*' . '. 0& *' .'+ '+,' &'& *'<+* + *'+,' &' '. .

* -' ? &' 5+ &' ,+*' & ' * 0& ' +' & ' -+* <* , 0' ,+*' & '
6',' ? 7 ' &+ , .' 6 *(' .'& 7 0' << .' & 6 ,' +'
6 '=+*.' E *- * ', & *' ' ?' +' + ' +,'9 -&. * ' .'
-F .'& 6' & '& '& .' /+ 0& ' '1+, & '-+6<* 0' . .'
* '? &'& 6' ' 6 '+,'& ' + ' ' ?' '? ' ' *6 '+,'
< 6 ' +' & ' G - +* ' & ' * ' +'?& -&'& '& .'* 0&
$ > '9 -&. * ' . * . 0' & *' ,*+64' 6 '=+*.' E *- * 4
$ & ', & *' ' ?'P +'?&+6' *' : 6'E+0'& .' 0 + '
+.' ' & '* - + '? ' +' ' 0 .'/ ' & ' '? '6 . '
'<* -'+,' .'? &' .7 -'+,'1+, & '+? ' ? *' .' & '
< < *'? *' '.* ? 0' .'& .' 6 '=+*.' E *- * '<*+6 , ' &
' & *'& ' +*' & ' + ' ' ?' &+ .'< ' ' & *' 0 6 Z' +*' !
< *& <'& 7 0'& *.',,+6' +6 '+ & *' & .' & ' & ' * -H
+ '? ' +' '< *, - .' '?* ' & ' .'& ' 0 '.+ '. '
? &'5+ &' .'* <* ' +' & 6 ' & '& ', & *' ' ?'/ 0'
& ' '=+*.'+,' , + 'K? ' / ' +'.+ '5+ &'6+*' (. , '
& '& '& ,'+,'& ', 6'<*+6 , .' / ' *' : 6'E+0'- 6 '
+' .'5+ &'& 7 0' & ' '0* ' < '. < . 0'/ ,+*' & B
=+*. '+,' , + ' 0 ' & '1 * ' +,' . '5+ &'? '
<* 7 .' <+ ' +' /* (' +,'& 'K * - + '? &' *'E+0'
.' <+ ' & ' 6+*+?' & * , *' & '.+ ' * 6 '& <<* '
&0' +'9 &. * ' 6 '=+*.'E *- * ' / 0'<* ' '& '-+6 '
6 0' .' / -* 7 0' , *' & '& .' & ' -F * .' & '
* 0& '+,' +' << - ' & * - ' & '.+ ' & ,* , ' '<*.- ,
$,+*' 6 ' .'. ' 0 ' ' .'F *' / ' / - ,'
& '?+ .' (' +6 ' 6 ' / ,+*' '?+ .' /* 0' & 6' +'<+, ,'
+ '/ ' & '+*. * '-+6 '+,'8 - ' .' & '& '? '* ,+7 .'
< *', ' ' , '<* ' +'<+, , '+*' '& ', & *' ' ?'
6+ 'V '& ' *6 .' Z' &+ .', '& 6' -&'6 &+.'? * '
, ' <+ ' .' 6 . ', '+,',+*' 0' & '<+, , + ' 4'
? * ' +'? ' -+ ' & *' ? &' ? +*',+6 P &+' .+ '
. *' -+ + *' .'<* G'+,' - Z' D .'?& -&' '& 6/ '-+
$- 7 .' 6 '.Q *7' + *' 3* - ' .' & 'E+ + * / ')+ *'+,'
' * 6 ' & *' -+ , . * + ' .' D.* , '9,' +', *' ',,* ' '

.'9 -&. * '<* , ** .'K <+ '& ' <<* 0' / ' 6 '=+*-%
'* 6- 6 '+*. *'?&+'7 * '< '& *.' 6 '=+*.' E *- * '
< .' '& '< *< '0+? ' '& '- *'&+ '/ ' + ' ' ? ' '
- '/ ' '?+ .' +' +?' + *' << - '<*+- * +* ' & '
=+*.' 7 *' <+ ' 6 6.' +,' '.+ *' ' , ' '/ /. '
& 6'0 7 ' ' ' .' & '=+*. '? &' '/ '?& -&'?& '0 7 '
$.'/ ' & '=+*. '* , .' & '/ '? '. -& *0 .'/ ' 6 '=+*.'
'* 6- 6 ' +' / ' *' +' & '. -* ' / - ,',+* ++ &' '
. .'-+ ' '? ' D .0 .' +6 '* , - + ' <+ '& '8 - '
+*' -+ .' + *' << - ' +*' & *' <*+- * +* ' / ' +' 6 -&'
+? .' ' +' ' & ' 6 *' .' &+' + *' < + *' . '
0 '* - 6 '/ ' ' / ' '? ' & ' +' * , .' .'. H
-& *0 .' +'/ ' *' ' & '. -* ' .'+*. * '0 7 ' +' - * '
+' <<* & .' .' 6<* +* ' 6 ' & ' .' *' +',+*'
+,, * 0' ' 6 ' ' %& *. '?& '9 -&. * '& .' & '+/ .'
<* , * - '& 'ZZ &++7 .' G' +'& 7 '<+, , + ' .' & ' 6 '
6 . ' .'/ - ,' & '-+ .' +'/ '.+ ' ' & '* '? * '
F . ' / '& ' '+ & ' .' * '? ' & ' / ' ?+' +*'
&* ' . ' +,'& ' , + ' +' * ' ' ?' .' & *.' +,'
6 &+.' ', ' <+ '?& * / ' & '=+*. '<* , **'9 -&. * ' +'
& '* ' ' & ' *' / .'/ ' <<+ .'+ '+,' & *' 6 '$
& *' +'-+ 7 ' & ' '/ ,+*' & 6' ' & ' 6 '+,'7 - - '
.' +'* * -' & '. - * + *' --+*. 0' ' & ' &+ .'<*+. -
4 -('+*'. <+ ' <+ ' & *' * ' .' --+*. 0 ' ' & '6+ &'
+,' 0 ' +6 ' +,' & ' '<*+. - .' & *' -(' .'
+ & *'6 . ', &' <+ ' & *' 5 ' .' -&' '? * ' +' / '
+'-+6 ' &*+ 0&' ,*6 '+*' 0 '? * '&+ . ' '-+ , ' .'
& * , *' +0 & *'? &' & '* ' ('? &' - < + ' ' 6 '+,#
& *7 ' .'< ' ' & '%+ /++ '+,' ' 6, *6 0'?& * '9 -&'
. * '. .' F . ' &?'* ' / ' & *' + & '?& ' & '? * '
& '<* + * ' .' ' & '? &+ ' +'6 -&' ' 7 *' G * - 0'
' -' ' & '<*+- , ' '+*. *' +' & '= F . + '+*' 2 & *? '
.',' + *' << - ' &+ .' << ' & 6 7' +' & ' ,+'
+ ',+*' * 6 .' ' ?+ .'/ '+/ * . .' +' ' & ' & '/ 0'

/ ' & '& .,* , .' 0 ' ' .'+ *' ' '+*. * '
- + ' +,' 6 ' .'. 8 ' .' & '? ' &+ 0& ' ? ' 6 '
+ 0&',+*' D' +' ,? *' ' & ' . ' +'?& -&'? ' ? * ' - .'
'/ - ,' & '?+ .'/ ' ++' . + ' & '< ' ' '/ '+,' H
< + ' ' 6 '+,' & ' ' <+ ' ' * +'2,' 6 < '
<+ 6. 0' ?& -&' / ' & *' <*+- * +* ' ' & &' 6 ' .'
& ' & 7' . *' & *' & . ' .'+. -F 6 ' & ' 6 ' '
<*+- ,'? ' .' .'? ',+*- .' +' . / ' & ' * ,'+,'
+ *' & * - ' <+ ' ' / 5' ' & ' . '/ *' +'/ 0' +? .'
/+7 ' ?+'. ' +', ''& '< *, * '<*+- , ' .'/ - , ' &'
,'? '. .'<*+. - '+ *' * ' & '-+ .' +'& 7 ' '-+ H
* . - +*' .' +' +' '7 .'. -, ' (, '=+*.' '* 6- 6 '?&+'
? ' <<+ . P+*'* & *'-&+ Z' +'& i' & '- , '. .' &* '
' ,' : '<*+. - .'+ *' * ' & '=+*. '?+ .' F '
* ' & '* & ' ?& -&' --+*. 0 '? ' : *' - , ' +' .+ ' +'
<* 7 ' F * + 'é .'?& ' & '5*) ' '+,'6 ' & '
.' *0 * ' : *. :'? '<*+. - .' +.' & '- , '? '+7 *Z'
.'9 -&. * '<* , ** .' & ' 6 ' : ' .' <+ '/ '9 -/'
. * ' ' 6 ' 7. '/ + 0 0' +'& 6 ' .'& '. .'< * ' '
* 6+7 0' 0 ' '/ ,+*' ' , *+*')+ * '?& ' / ' 6 '
?* ' & ' ' & ' &+ .'& 7 '. , , . .' ' '+ *'<+, , + '
? ' '& '2?'& . ' -+ . '? '& 7 '<*+<+< .' ' . , -'
<+ '+ *' ,* ' ' & '/ '7 * F' & *+,'? '& .'/ ' *'
,+ * ' *' '<+, , + ' .'? -+ .' +'/ ' 66 * '. <+,'
, .' ,'+ *'* 0& '? * '* ., - .' ' +'9' & ' .' *0 * '
: *. ?'& 7 0' +/ .' '. -* ' +,'* . - + ' 0 ' & '
< * *' &+*' / '?& -&' ' ? ' . - * .' & ' / ' 9' ? '
-+ *' +' 8</+ . ' ' & '-+ .'+ ' G- .' 6 ' +' & '
* '* 0& ' .' , , 6 ',+ +? 0' & * <+ '9 8 ' & ' 9' ? '
,* '+,' '< * + ' +/ 0 6 ' ' +', *' '9' ? '+ '/+ .'
? &'6 '+? '& / .' .' & '<<* 0'/ 0',+ . .' <+ '
& '< * + ' +/ 0 + ' ' -+ .' +' G- .' 6 ' , * ' .'
& '& '< * *' &+*' G . *' .' *-& / .' * '& 7 H
0'/ ' ' , , 6 '+,' * ' ,, * 0' +' & * 6 ' & '
6 '-+ .'/ ' +' ',+*' <+, , + ' '? ' ' & '* < .

.' 9 -&. * '<* , ** .'K <+ '& ' <<* 0' / ' 6 '=+*-%
'* 6- 6 '+*. *'?&+'7 * '< '& *.' 6 '=+*.' E *- * '
< .' '& '< *< '0+? ' '& '- *'&+ '/ ' + ' ' ? ' '
- '/ ' '?+ .' +' +?' + *' << - '<*+- * +* ' & '
=+*.' 7 *' <+ ' 6 6.' +,' '.+ *' ' , ' '/ /. '
& 6'0 7 ' ' ' .' & '=+*. '? &' '/ '?& -&'?& '0 7 '
$.'/ ' & '=+*. '* , .' & '/ '? '. -& *0 .'/ ' 6 '=+*.'
'* 6- 6 ' +' / ' *' +' & '. -* ' / - ,',+* ++ &' '
. .'-+ ' '? ' D .0 .' +6 '* , - + ' <+ '& '8 - '
+*' -+ .' + *' << - ' +*' & *' <*+- * +* ' / ' +' 6 -&'
+? .' ' +' ' & ' 6 *' .' &+' + *' < + *' . '
0 '* - 6 '/ ' ' / ' '? ' & ' +' * , .' .'. H
-& *0 .' +'/ ' *' ' & '. -* ' .'+*. * '0 7 ' +' - * '
+' <<* & .' .' 6<* +* ' 6 ' & ' .' *' +',+*'
+,, * 0' ' 6 ' ' %& *. '?& '9 -&. * '& .' & '+/ .'
<* , * - '& 'ZZ &++7 .' G' +'& 7 '<+, , + ' .' & ' 6 '
6 . ' .'/ - ,' & '-+ .' +'/ '.+ ' ' & '* '? * '
F . ' / '& ' '+ & ' .' * '? ' & ' / ' ?+' +*'
&* ' . ' +,'& ' , + ' +' * ' ' ?' .' & *.' +,'
6 &+.' ', ' <+ '?& * / ' & '=+*. '<* , **'9 -&. * ' +'
& '* ' ' & ' *' / .'/ ' <<+ .'+ '+,' & *' 6 '$
& *' +'-+ 7 ' & ' '/ ,+*' & 6' ' & ' 6 '+,'7 - - '
.' +'* * -' & '. - * + *' --+*. 0' ' & ' &+ .'<*+. -
4 -('+*'. <+ ' <+ ' & *' * ' .' --+*. 0 ' ' & '6+ &'
+,' 0 ' +6 ' +,' & ' '<*+. - .' & *' -(' .'
+ & *'6 . ', &' <+ ' & *' 5 ' .' -&' '? * ' +' / '
+'-+6 ' &*+ 0&' ,*6 '+*' 0 '? * '&+ . ' '-+ , ' .'
& * , *' +0 & *'? &' & '* ' ('? &' - < + ' ' 6 '+,#
& *7 ' .'< ' ' & '%+ /++ '+,' ' 6, *6 0'?& * '9 -&'
. * '. .' F . ' &?'* ' / ' & *' + & '?& ' & '? * '
& '<* + * ' .' ' & '? &+ ' +'6 -&' ' 7 *' G * - 0'
' -' ' & '<*+- , ' '+*. *' +' & '= F . + '+*' 2 & *? '
.',' + *' << - ' &+ .' << ' & 6 7' +' & ' ,+'
+ ',+*' * 6 .' ' ?+ .'/ '+/ * . .' +' ' & ' & '/ 0'

. -* ' ' ,+*+' ' - +' / ' +< .^ .' & & '=+*. '
+,' , + ' & *' . -* ' - +' / ' * . - .' <+ ' & '& .' N'
F ' 2 & ' + *' < + *' *' - , ' +' & 7 '* '
-+ *,' +' + *' 3* - ' .' & 'E+ + * / ')+ ' +,' * H
6 ',+*' '* .*, ' .'* 6 .'+,' & ' 8 ' -'^ ,+*' & '
* + ' /+7 ' .' , *' 6 + .' 7 ' * 6+' %& ' & ' H
< + '0 7 ' ' '/ '9 -&. * ' ' & ' 6 '-+ .'/ '
+',+ . + '+,' ' <*+- , ' 0' & ' & '. - 6 .'
' -&' < + ' ' << * '/ ' & '. - 6 + ' .' * & *'
& .' & *'? ' & '0 R 0' ' '/ '+,' < + ' ' & ' H
' 6 ' , *' & '6 *' '& / '? ' ' ?' +'/ ' '0*+ .' '
+' . <+, ,' & '< ,+ * ' - .+' %& ' ?& * ' 7 '
* '<+, , + ' ' ,, - ' +'0 7 ' & '/ , '+,' <+, , +* '
8 .0 6 ' & '< + *' & .' +'+ '/ ' 7 ' * '/ '
6 ' 7 ' * ' '<+, , + '+,' & ' . ' +' & ' & '-+ '
+'/ ' 6 6 * ' * .'+ '+,' & '<+, , + ' ,' & *' * 0& '
? * ' * . - .'?& -&' & *' ' +*' - ' / '& ' .' *0 * '
: *. ?' , * ,'* 0& '/ 0' FD + / e<* , * / ' +' & '
<<*, 0' .' & ' & *'? ' +' +' 6 -&' ' '* . - + '+,' '
* .' % * +'%& ' & <<* 60' ,'? ' ' ' +' & ' .'
*0 * ' : *. ?' / 0' .' <+ '& *'< * + '+/ 0 + ' '
& '/+ .'/ '?& -&' & '? '/+ .'8+ '? &'& *'& / .',+*'
< 6 '+,'& ' 6 é :& -&'< * + '+/ 0 + '? ' * . - .'
/ '& ',+* .' . -* ' +,'* . - + ' +' & '<<*, 0' I&'< +'
8 * ' ' +'& *' .' / ' & '/ ' & '.<-* '+,'* . - + '
& ' .' *0 * ' : *. ?' -+ ,' ' .' ' + , *' K'
-+ - * '& '* D' * 0& ' ' & /+ .'/ 0'. - * .'& ' ' +'
& '< * + '+/ 0 + '?& -&' & ',+ . + '+,'& ' <<*, 0'
? ' < +'8 * ' ' +'& *' .'8& '* '* 0& '/ 0'+ ' '
, , 6 '+,' < * '-+ .'/ 'D+' '+,'<+, , + ' .'
/ ' & '< + *' 0 7 ' ' 7 * '/ ' <+ ' & ',+* .'
0*+ &.'* - 6 0' 0 ' & ' *+0 +* ' '9 -&. * '
& .'& ' , - ' & ' +'+ ' & '/ '? * '* , .'/ '? *'
+' +' 6 -&' F' +? .' +' /' *' ' & '. -* ' ' .' '@'
.' & * ,+*' & ' .'. -* '+ 0& ' +'+ ' +'/ '* . - .'&
' ' .0

&'< + *' + 0&' +' /' * <+ .' +' &' <+, , +' +,' &' (. ' .' 9 -& * ' + 0&' +' /' / ' +' &6! ,<* &' / 0+ ' * ' +,' &' . ' &' ,+ *' *' / ' < ' &' & '& 7 ' / ' . <+, ,' / 0' ?+*,&' ' & .* &' <+ .' * 0 * ' ' 8.' 0' &' < + *' & 7 ' <*+. - .' &' . -* ' .' , .' &' <*+. - + ' & 6 7 ' & * ,+* ' &6 / ' -* 7 0' & '& #3* -' & *' 8 ' E 0&')+66 , + *' .' &' 1 ' +,' * 6 ' 6 0&' / ' < .' +' (' &' <* 6 ,, ' +' & *' -+ H . * + ' .' 0* ' ? ** . ,+*' - 0' &' .' G . * ' + ' +,' 9 ,-&. * ' +' << *' / ,+*' &' * 6 ' +' & *' .' , ',+* K' . -* '+/ .' '& ' -' 0 '&' < + *' .' ' ,, -' .' G - + ' & * +,' ('+,' ' 6 '-+6 0' & ' &' < + *' 6 0&' / ' * <+ .' +' &' <+, , < '+,' & *' .' .' 9 -&. *& ',+ .' / ',+*' &' / 0+ ' * ' & * +, & , ',+ *' *' / < ' / 0' '& .* .' < + .' * 0' * '+*' + & *' ? ' +' * 6 ' +' & ' =+*. ' +,' , + ' +' -+ . *' & ' 6 * ' 8 - '+,' & ' < + *' - , ' ? &+ '* < - ' +' & ',+* K4 . -* ' ',+*+' .' +' * -+6 6 .' +' & ' =+*. ' +,' , + ' & ' ' +6 ' & '* <+ ' & ' < + *' +' & ' <+, , + ' +,' & ' . # & ' & ' 6 '& 7 ' & ' <+, , + ' ' & ' 6 *' / ' . - ' . # & ' & ' 3* - ' .' & ' E+ + * / ')+ *' +,' * 6 '?+ .' & *' <<+ '+*' * -+66 .' +' & ')+ - +' <<+ ' ' / ' 6 ' +' + *' << - '8' & ' 6 ' 6 ' <+ ' & *', . 0' ,, - '- + ' +' * ,+ .' & ' 6 ' ' 7 ' : & -&' < + ' /+7 6 + .' / 0' * .' & *.' .' -+ . * .' / ' & *' 8 ' E 0&')+66 , + *' .' &' 1 ' +,' * 6 ' & '. .' 0* ' .' & * / '0 7 ' .' 0* ' +*. *' .' ? ** . # +' - *' +' - ' &' /+7 6 .' G . *' + ' +,' 9 -&' $. * '< * + '+*' &' . ? 0' &+ , ' +' << *' / ,+*' &<' * 6 '&' ? ' G &' . '+,' & ' '? &' -+ + ' +,' . ' +' & *' .' ' &' . *' +,' & ',+* .' < + '0* .' +*' +' 0' * + ' ' &' -+ * *' ? &' - * , - + ' ,' & ' , . ' & ' ? ' (' &' < + ' +' & *' -+ . * + ' .' .+ ' & * ' ' &' & ',, .' 8 T

25 '151 '' & ' &')+66 '6 ' ' ' -+ -(' + ' ++ . ' G ' .' & ' &')+66 ',+*' , - * '+,' &' C60.+6 <*+- .' ,*,' +' -+ . *' &' -',+*' & 4' = ' ' +' , *' ' & 6 ' ' +' * . '. *6 .' / ' &' * 6 ' .' & -',+*' &' + '6+ ' ' &4' G' < -' / ,+*' '+& *' 6 * ?& ,+ 7 *' c 4

%E1I' &' =+*.')& - *' / '+*. *' .8+ * .' &' * 6 ' +' % . ' G ' ' ' -+ -(

%: 11' ' =1') -
9e e ' e *D

' ' (U0' !

5 A15 ' .

%E1' 5+ '- .' .' &' /, '6 *(.

) < ' : 6' 5 '+,' 3* // ' .' +&' -+' +,' : ' ' &' & *' +,' 5+G/ *0&' ' : 6' ? *' +,' 6/* 6+*' ,+*' &' & *' +,' > '5+/ *' J ',+*' &' / *0&' +,' ' / ,' 5+/ *' ! ? *' ,+*' &' / *0&' +,' 5+ & ' .' +&6 . *,+ ',+*' &' / *0&' +,' '+* +-&' ')+66 , + *' - .' +' << ' &' 7 - - ' ' . - * .' & 7 0' (' &' + &' .' /H -*' 7 .' &' .0 -' .' , * -' ? *' . 6 .' -+ ,+*6 ' +' & *')+66 , +

%E15' '& 0&')+66 , + *' . - * .' & '&' & . '* # - 7 .' ,, - ' ,+*6 + '+,' &' , *6 ' .' + .' 0 '+,' & f' 1 * '+,' * ' .' & *,+*' G- .' & ' /, - ',*+ ' &' , 6 ' $ ' E 0&) 6</ ' +,') . *' .' &' = *.' +,') -(6 * G- .' <+' - * , - '+,' & *' . <+, + 4' ' +' , *' '-+ c - * ' & *', ' '

;

%E1',+*6 *. ' '* .

%E1' -' * ' &' .0 -' .' , * -' ? ' + -& .' ? & &' - < *' .'+*. .' +' / '< / & .' .'<* .' 4

' 1%9%92 I', _ & * +,' +? & * .' ' & ' <* - H . -' +' & !' + & *' 1 * '* (.' / ,+*' & 6' ' & '*+ '+,' *H 6 '* .' .' & '* 6 .' +' & ' , + ' & *' +' < *, ?' & ' *X&' .' - 6 ' ? &+ ' / . 0' & '-+ * '+,' & '*+ ' .' ' --+*. '+,' & ' ?

%E1' -',+*' &' = 7 '* .' 0 ' .' , *' +6 ' 6 . 6 ' &' F , + ' ? ' .' <<*+7 '+,' &' -' ' ' .' +*' *' . / 0' < ' +' & '7+ ' '- ** .' <<*+7

I 1' -' <*+& / 0' '-+** <+ . -' ? &' J* -' . * 0' &' <, , ' ? *' . *' &' < _ 4+,' * ,+ '/*+ 0&' ',*+6' &')+66 ',+*' -6 '+,' &' C 0.+6' * .' < ' +' & '7+ ' .' <<*+7

%E1' <*+- ' ' &' , -' .,' &')& .* ' +,' '%&+6 ' ? *' ,')+ , ',+*' <*+7 0' &' +*' +,' / * .' ?* ' / 0' - .' 0 ,' &' & D' . , . *' ? '* , ** .' +' &')+6 ' * '+,' - + ' ? &' <+? *' +' G 6 ' &' ?&+ '6 *' .' +' * <+* ' 4

' : 55 I '',+*' ' - + ' <+ ' ' < + ' / ' ' 3 /* ' 6< ' 0 ,' 3 +*0 ' C S '+,' 5+, & 0&' .' & ' +*' 0* .' +' & ' &* &' . '+,' ' ,

%E1' * <* , + '07 ' ' /' & ' 3* -' & *' '& 0&')+66 , + *' .' & '= *.' +,' 1 * (',+*' G& / + '+,' & ' = *.'+,)+*& ' / -(& .' ' &' , '+,' 5+/ * .' " .' '? ** .' 5 .' ,+*' - 0' & '= *.' +,')+*& ' .' &

4%E1 < + ,+* & = .) , & 7 ? & & =+*.)+D 0 +? % *?**. & .7.- ,+* & *< * / 0 & *., + %& . - +* 07 / & =+*.)+ 0 +?7 0 , -&+, & 6 6/ * * ? & . 0* ,+*/ .. + & = . ? , . & . - +*+,, * .,+* & = . 0 , & =+*. +, + ?&+7+ . & ., *, . -* *.& .7+- ?&+ < . & - , / ,+* & , , + ? + , , .8 . , * .7 0 & . / / ,+* ,? * & * + /+ &< * ? * * +? . -+ 8 - <*+/ + +, & <+ 6 * <* , ./ ,+* &)+66 +,1 - + 0 , & G&. +, G

%E1 < + ,+*6 * <* , .,+* <*+ - + + +& (+,E. *. 0 , & -* . +** .? & , *, +,+* ' 7 .) (. & F , + , .3* <*+ - + & G , + +, * 6 +* +? < + & 7+ . - ** . i ,,*6 7

%E1 < + +,& =+*. + R+*,+* * -+7 * +,& ?*8 ? * . . 3* .6 .*, ** . + &)+6, +,1 - + + - , < + . G - +

"

%E1 < + ,+* : 8 6 & *< 0 , & 1 * +, ** . * &6+* 0 * . . & < + * , 0 06 , & d * +, ** %& , 7+- ,+* & 1 * +, ** -+6< * 0? * +? . + , . , * 0 , & , + . . +, 6 G $c

%E1 < + +, 0) 6</ ,+* / 0 & * + -+ * - ? &+ -+ -+ *, +,& * & ,/ . / 0 0 * . ? &4 & G - + . & - , &)+ * -+,6 * .0 ?& * <+ & < + ? , + . . %& ;F , + ? , . 3* & . , * +,& < + +* + ?& -& / 0 < + & 7+ ? $) ** . & ,,*6 7

%E1 / , . + -+ +,E 0&-& , * 0 , + & ' 6<, * +% 7 * - . . & .7+- ,+* /+ &< * <<+ . + / , *. * & *. & - , $ $

%E1 I & =+*.)& - * / +*. * .8+ * . & & * 6 + +6+**+? - (% : 11 ' ' =1)F<- g é ' * ' ' é * e

4

5 A15 . 0

%E1 5+ - .8 . & /, 6 *(.

%E1 *+ - + + * 6)+-(/ * +,& (. GH . * E 6 + +,C (* ? . + & , , &. +, G $

%E1 ,+*6 * . * .

D 2 I <*+. - + +,&) * , - + + + .)+ - - +,& E . <+, + +,%&+6 C .)+66 , + *,*+6 & / *0&+,=+-&6 / & 6 ? . 6 . ,+* . -& *0 +,$ & , ,+* & /, -

%E1 - .8+ * 0 & , + . & * 6 &+* SH 0 , * +* -+ * + , -+ ,+*6 + & A+*6 *7+ * . < + & 7+ . <<*+7

I1 - ,+* 6<*+7 0 & * . +, - + &* <+* .,*+6 &)+66 +,* . * . 0 * 6 . / -(+ &)+6 6 & * + / , *. * -+ . * .

I1 - +? 0) + + / 6 . + & , *, , . , + . . + & , 6 6 * .7 . . <<*+7 * $ $

I1 - ,+* - , * 0 +, -+6< + . <* , * - +, * *0& * .7+ . . <<*+7 $ f $

I1 - ,+* (< 0 /++(& 7 * L 5)0, * * .7+ . . <<*+7

I1 - G . 0 & < *+ * 0& +, . / & - +, & , + +, & * 6 * *+ 0 + & . +, < *,+ 0 +*+ & * / , - ?& ,+ 7 * * . . * 6 . + &)+ F6 ,+* - * +, & (0.+6

I1 - +? 0, 66 * * 0 * + +,? , * &)* . H +* . & . -& *0 0 - + +, * , ** - - 7 5 . 7+ . . <<*+7

I1 - ,+* <* < * 0 -+ - . . - , + *. * + .7 08 * . . * 6 . + &)+66 ,+*, - * +, & C 0.+6

I1 - , , 0 5 ,0 + . , , , 7+* +, * 8 <+ <*+* . <* - < 0* . , 7+* +, & * <* . - , +* * . . * 6 . + &)+66 ,+*, - * +, & C 0.+6 $ $ 25'151' & &)+66 ,+*, - * +, & C 0.+6 /* 0 - & ?& , . *6

: 55 I ' 0* . + & * < .7+- + * H . - 6 . , , / ,+* & * 6 ,+* & 0& * ,+ 0 , & ' (+, 3+*.+ . & 1 * +, ,+* &

: 55 I ' ,+*4 - + + < + / , & 1 * +, 7 0 , & 1 * +, * & . + & * 0* . + & G & . +, G

4%E1 < + ,+* & = .) , & 7 ? & & =+*.)+D 0 +? % *?**. & .7.- ,+* & *< * / 0 & *., + %& . - +* 07 / & =+*.)+ 0 +?7 0 , -&+, & 6 6/ * * ? & . 0* ,+*/ .. + & = . ? , . & . - +*+,, * .,+* & = . 0 , & =+*. +, + ?&+7+ . & ., *, . -* *.& .7+- ?&+ < . & - , / ,+* & , , + ? + , , .8 . , * .7 0 & . / / ,+* ,? * & * + /+ &< * ? * * +? . -+ 8 - <*+/ + +, & <+ 6 * <* , ./ ,+* &)+66 +,1 - + 0 , & G&. +, G

%E1 < + ,+*6 * <* , .,+* <*+ - + + +& (+,E. *. 0 , & -* . +** .? & , *, +,+* ' 7 .) (. & F , + , .3* <*+ - + & G , + +, * 6 +* +? < + & 7+ . - ** . i ,,*6 7

%E1 < + ,+* : 8 6 & *< 0 , & 1 * +, ** . * &6+* 0 * . . & < + * , 0 06 , & d * +, ** %& , 7+- ,+* & 1 * +, ** -+6< * 0? * +? . + , . , * 0 , & , + . . +, 6 G $c

%E1 < + +, 0) 6</ ,+* / 0 & * + -+ * - ? &+ -+ -+ *, +,& * & ,/ . / 0 0 * . ? &4 & G - + . & - , &)+ * -+,6 * .0 ?& * <+ & < + ? , + . . %& ;F , + ? , . 3* & . , * +,& < + +* + ?& -& / 0 < + & 7+ ? $) ** . & ,,*6 7

%E1 / , . + -+ +,E 0&-& , * 0 , + & ' 6<, * +% 7 * - . . & .7+- ,+* /+ &< * <<+ . + / , *. * & *. & - , $ $

%E1 I & =+*.)& - * / +*. * .8+ * . & & * 6 + +6+**+? - (% : 11 ' ' =1)F<- g é ' * ' ' é * e

4

5 A15 . 0

%E1 5+ - .8 . & /, 6 *(.

%E1 *+ - + + * 6)+-(/ * +,& (. GH . * E 6 + +,C (* ? . + & , , &. +, G $

%E1 ,+*6 * . * .

D 2 I <*+. - + +,&) * , - + + + .)+ - - +,& E . <+, + +,%&+6 C .)+66 , + *,*+6 & / *0&+,=+-&6 / & 6 ? . 6 . ,+* . -& *0 +,$ & , ,+* & /, -

%E1 - .8+ * 0 & , + . & * 6 &+* SH 0 , * +* -+ * + , -+ ,+*6 + & A+*6 *7+ * . < + & 7+ . <<*+7

I1 - ,+* 6<*+7 0 & * . +, - + &* <+* .,*+6 &)+66 +,* . * . 0 * 6 . / -(+ &)+6 6 & * + / , *. * -+ . * .

I1 - +? 0) + + / 6 . + & , *, , . , + . . + & , 6 6 * .7 . . <<*+7 * $ $

I1 - ,+* - , * 0 +, -+6< + . <* , * - +, * *0& * .7+ . . <<*+7 $ f $

I1 - ,+* (< 0 /++(& 7 * L 5)0, * * .7+ . . <<*+7

I1 - G . 0 & < *+ * 0& +, . / & - +, & , + +, & * 6 * *+ 0 + & . +, < *,+ 0 +*+ & * / , - ?& ,+ 7 * * . . * 6 . + &)+ F6 ,+* - * +, & (0.+6

I1 - +? 0, 66 * * 0 * + +,? , * &)* . H +* . & . -& *0 0 - + +, * , ** - - 7 5 . 7+ . . <<*+7

I1 - ,+* <* < * 0 -+ - . . - , + *. * + .7 08 * . . * 6 . + &)+66 ,+*, - * +, & C 0.+6

I1 - , , 0 5 ,0 + . , , , 7+* +, * 8 <+ <*+* . <* - < 0* . , 7+* +, & * <* . - , +* * . . * 6 . + &)+66 ,+*, - * +, & C 0.+6 $ $ 25'151' & &)+66 ,+*, - * +, & C 0.+6 /* 0 - & ?& , . *6

: 55 I ' 0* . + & * < .7+- + * H . - 6 . , , / ,+* & * 6 ,+* & 0& * ,+ 0 , & ' (+, 3+*.+ . & 1 * +, ,+* &

: 55 I ' ,+*4 - + + < + / , & 1 * +, 7 0 , & 1 * +, * & . + & * 0* . + & G & . +, G

%E1 / , . + -+ +,E 0&-& , * 0 , + & ' 6<, * +% 7 * - . . & .7+- ,+* /+ &< * <<+ . + / , *. * & *. & - , $ $

%E1 I & =+*.)& - * / +*. * .8+ * . & & * 6 + +6+**+? - (% : 11 ' ' =1)F<- g é ' * ' ' é * e

4

5 A15 . 0

%E1 5+ - .8 . & /, 6 *(.

%E1 *+ - + + * 6)+-(/ * +,& (. GH . * E 6 + +,C (* ? . + & , , &. +, G $

%E1 ,+*6 * . * .

D 2 I <*+. - + +,&) * , - + + + .)+ - - +,& E . <+, + +,%&+6 C .)+66 , + *,*+6 & / *0&+,=+-&6 / & 6 ? . 6 . ,+* . -& *0 +,$ & , ,+* & /, -

%E1 - .8+ * 0 & , + . & * 6 &+* SH 0 , * +* -+ * + , -+ ,+*6 + & A+*6 *7+ * . < + & 7+ . <<*+7

I1 - ,+* 6<*+7 0 & * . +, - + &* <+* .,*+6 &)+66 +,* . * . 0 * 6 . / -(+ &)+6 6 & * + / , *. * -+ . * .

< - '+,' ' * -(' T0 7 ' +,' >+8+ ' & 7 0' (' &' + &' .' /,-* 7 .' &' .0 - ' .', * - '? * ' .6 .'-+ ' ,+*6 ' +' & *')+66 , +

%E1',+*6 *' . ' '* .' ' B

%E1'< + '+,' &' , *'?&+'-+ ,+*6 .' +'1<,-+< - '* .' .'* 6 .' +' &')+66 ',+*', - * '+,' &'C 0.+6' $

%E1' -',+*'<* < * 0'-+ - . .'- , '*'+*. *' +' .7 0' 5 <+* .',*+6' &')+66 '* .'7+ .' .' <<*+7

I1' -',+*' .7 0'- , '/' &'=+*. '+,' , +'? &'+< '.++*' / 0' * <+* .',*+6' &', .')+66 ' .'* .'%&' F , + '? '5 . <*+- .'+*. ' .'- ** .'<*+- .' .' , *' +6' 6 .6 ' &' F , + '? ' 0 ' .'5 6 ' &' -'+'/', *. *' -+ . * .'/' &')+66 '+*' + '?& -&' / 0'< ' +' & '7+ '? '- ** .' ' &' ,*6 7

9 1' -' <<+ 0' & F , + +'/'?* ' / ,+*' *+' F +*'/'7+ .' '- , '. < . 0'/ ,+*' &'=+*. '+,' , + ' .' & ' & '/' /,-* 7 .' ' <* , -'+,' 'F +* 6'+,' &' =+*. ' 5 <+* .',*+6' &')+66 ' .'* .' . ' , *' +6' 6 .6 ' &' -'? '< ' +' &'7+ ' .' <<*+7

' 1%9%92 I',+*' &',+*, '< *,+ 'Q-'5 .' .'* 6 .' +' &')+66 ',+*' - * '+,' &4C 0.+6

MMDI%2'&'3* -'&* \'&0&')+66, + *' .'&' * 0&'&+ '%&' 1, '+,' * 6 '%&'< *,+ '%+*' , .', .' .' <+ .

E /'&?

%E %'?&*' + *' << - ' .' 07 ' ' '< + '5 <* 0' 7 * L'* ,+ ',+*'?&-&' &' , -'+,'&'8 ,' -' *,- . 0', ' .',+*, * 'Q-'&' &'&*+'/ ' ,* * ' &', .'< + ' '6+*' 0&' -+ .':&-&< + '? '* 6 .' +' &')+66 ',+*' - * '+,' &'< -'+,' ' I + '?&+'&7'6 .' +'* <+*'&* ' '

' '&*,+*'< ' +'3* -' .'&+ '1 '+,' *H 6 +' <<+ '&' .')+66 ' +'-+ , . *' &' .' < + ' .' +'6 (' F *' .' * ' +' &') ' &-&'&7'&&*+'+/,* - .' '+,'&'/ , '?'&.' /'&' , -'+,'&' .' -é .' +'6 ('<*+<+ '+' +'3* -' .' .'=+<'+,' ,'5 6 . ',+*'<* 7 0'&' (' ' 6'+'-+6' .' +'< \'&' 7 *'<* 'Q-é * 0

4

1.' ' '

%E19 5' '&0&')+66 + *'Q'>G' '+,' * '&7 0' -+ . * .'&' /+7.'< + '&'* 6 '&' 6 '+'&')+66 ',+*' - * '+,'&'C 0.+6'+'* <+*

$ %:11' ' =1') - ' 9e e'* * e

I1' -'+*. 0'&'=+*.'+,' , + '+' ' '&'+ * &+ , ' /'&*' * '5 <+* .',*+6'&')+66 '5 .'7+ .' .' <H <*+7

I1' -'. - * 0'& 'D=F +*'6 .'+,'6 '?&-&' &+ .' /'7 . .' .',+ .' , *' &',*,'+,' ' , ' * ' / '+'< ' &' .. + L' G- ,'?& &*'/*+? '/ ,+*' &',*,' +,' '+*' & * , *'+*'/*+? '? & '&'C 0.+6'+*' + '5 .'7+ .' .' <<*+7

I1' -' '> '* - 6 0' 0 ,'9 *+F *' '&' - *'&+ '5 <+* .',*+6'&')+66 ' .'* .

I1' -' <<+ 0'&'+*. *' '&'+ *'&+ , ' +' +' ' '&' *'&+ , '. * 0<'&'? (' 5 <+* .',*+6' &')+6H 6 ' .'* .' ' '

I1' -' '6 0'. / '5FZ+* .',*+6'&')+66 ' * .'7+ .' .' 00<*+7

25'151''&'&4)+66 '6 '+'6+**+?' ' ''-+ (

%E1I'&'=+*.')& - *'/'+*. *' .8+ * .'&' * 6 ' D' + . ' G' ' ''-+ (

' # %:11' ' =1') - 9é 'é''é *

8

5 A15' .

%E1'5+ '- .' .'%' /, '6 *(.

' G' S '+,'&' (' - .'+' << '&'7 - - ' ' . - * .',+*'&'&**'+,' *&'%&'= *.'+,'=+0 ' - .',+*'&'&**'+,'J+*, *8 '< - '+,' '3 +*0' C S '. - .' %&'= *.'+,'C /*' .' 6 '2'+,'> 7D+' - .'.. + ' ')+66, + *',+*'&' .'&**'+,'J+*, *'&7 0' ' ('&'+ & ' .' /,-* 7 .'&' .0 - ' .', * - '? *' .6 .'-+ ,+* ' +'& *')+66, + $

%E1' -' <<+ 0'&'+*. *' '&'+ *'&+ , ' +' +' ' ' &' *'&+ , '.6 0'&'? (' 5 88<* .' 0 ' .'* .'< ' +'&'R+ ' .' <<*+7

I1' -'* , 0' .'*0 0'&')+66, + ',+*'< + +,'C.*(' .'7 +'+,' .'07 ' ' .'* .' .'*6 .' +'&')+66 ',+*' - * '+,'&'C 0.+6'+'/'-+ . * .' .' * <+* .' +0 &*'? &'&' -',+*6 * '*6 .' . 0'&' < *+ '*0&'+'&' .'+,'< * + .0 ' .'+&*/ , -

%E1' -' <<+ 0'&'=+*.'+,' , + '+' .7 '- , '? &' +< '.++*'5 <+* .' 0 ' .'* .' .' , *' +6'. / ' &'F , +'? ' .' <<*+7'&' -'+*' + '5 *7 0'&' -+ . * + 4&+?' + 0'&' -',& ' . * '?&-&'/ 0'< ' +' &'7+ ' ' - ** .' ' &' ,,*6 7 ' .'&* , *' &'F , + '? ' .'9,'&' -',&+ .'/' 6<+* *' .' . *'+ ' +' &' G' , +'+,' * 6 '+*' + ' .'- ** .'8'&' 0 7'

I1' -' <<+ 0')* 6 L' / '+'/' .7 .'? &' +< '.++*'* .' $ 4

%E1'< + ',+*' : *')& '+,'' * ' .'&'/* &* ' .' *'Q'&*6+&*',+*' - 0'&'* . - + ' .'96<*+/ + ',+*6 * '* .'/'&'< + *'/ ,+*'&' * 6 '+,''/+ .' 0* .'/'&*', &*'+')& * 'J '+,'=+ .+ ' .' '/ (' , 0 + '&*+'? '* .'6 &'&'G - + ' .')* , - + '0* .',+*'&+'<*+. - + '+,'&' .'/ .' .' , 0 + '/ ,+*'&' * 6

%E1'* <+*',*+6'&')+66 '+,' - + '+,'&'< + '+,' 3 < ': 6'> * '+,'> ,+ *' .'. <+ + ' ('&*' ' ? *'* .' .'&'F , +'/ 0' .'6+. , ' .' F . '&'. 6 .0' .'/'&'< + *' .'& ' ' '+'' &+ .'<+ .' * 0'+*' + '9'? '< ' +' &' 7+ ' .'- ** .' ' &' ,,*6 7

%E1'< + '+,' : 6'&*<+,' -+ -* 0'? &'-+ -+ * '+,'&'=+*.') ,.*+, ' .'&' ,? *'6 .'&*+',+*'&'1 * '+,' ** '? *'* .'? &'&'<* - <' .* ? '/'C 0')& * '&' -+ .'+'&'=+*.')+66, + *'+,'&'%/ , * ',+*'< H 6 '+'&'1 * '+,', 7'& . .'<+ .' * 0'+ '+,'&'=+*.') *.*+, ', ' .'&'<* - <'.* ? '/'& 6'+'&'. - .' ' : 6'& *<' 3 * '* - 7 *'? &'&'* - <'0* .'/' &'1 * '+'&' .' *': 6'<+'< 6 '&*+' /8+ .' .'&' .7+- ',+*' &*'< * '/ 0'&*.'%&'F , +'?

A

.' ' - *' 0 ,' &' 1 *' +' * ,+ .' &', *7' & .* .' <+ .'+*' * 6 ' &'- ,' +' &' , + '?&-&' / 0' < ' +' &' 7+ ' '- ** .' ' - *

$

' 1%9%92 I' /' &'= *.' +,' -(+&' * 0' +' ',+*H 6 *' < +' .'* <+*' / '& '. 6 .0 ' /' &'* / '* .

%E1')+ 6 ' <<+ .' +' 6 ' ' ' '- + (' ' &',+*' ++ ' .',+ *' ' &' , * ++ ' +' 6+**+?

' /&%*%* ',+*' *6 . (' E .,+' .' ' : 6' E+0' ' &'.* 0' +,' + D 0&'* . ' .'* 6 .' +' &')+66 '+,'%* .

%E1 I' &'=+*.')& - *' / '+*. *' .8+ * .' &' * 6 ' D' : . . ' G' ' ' '- + -(

%: 11 ' ' =1') - '

9e e ' e *9e

4@' 8'

5 A11 ' .

%E1' 5+ '- .' .' &' / '6 *(.'

%E1',+*6 *' . ' '* .

%E1'- '+,' &'& * +* +,' & ' & * ' +,' J+*, *' ?&+'* , ' +' (' &'+ & '* 6 .' +'/ '. *6 .' / ' &'=+*. '+,' *7 ')+ '-+ ,+*6 ' +' &' - '+,' * 6 '6 . '& *

I1' -' ' &')& *-&' 3+7 * 6 '* <+* .',*+6' &')+6 ' 6 ',+*' - * '+,' &'C 0.+6' .'* .

%E1' -' G . 0' &'< *+ ' *0&' +' &' .' +,'< * + ' .0 ' .'+& *'/ , - '* <+* .',*+6' &' .')+66 'Q'* .' .' , *' +6 ' 6 . 6 ' '? '< ' +' &'7+ 'Q' <<*+7

%E1 I' &' -'* , 0' .'* 0 0' &')+66 , +',+*' < +'+,'C *(' .'7 +'+,' . '? '* <+* .' .'* .' .' , *' 7 * ' 6 . 6 ' &' F , +'? ' .'?&H & *' &')+66 , +'9&+ .', ' ' &' *' , +'&+ ,'+*' ' &'&+ ,'?& *' &')+66 , +'? ' ' ,' +' ' ?&-&' / 0' < ' +' &'7+ '9'? ' - ** .' & ' ',&+ .' ' ' &' *' , +'&+ ,'

$

' : 15 I ''07 ' +' & *' ' .7+- ',+*'& * .' ! ' ' G - ' &' . - 6 ',+*'& 0&' * ,+' / ,+*' &' * 6 ' 0 ,' &' ' ('+,'3+*.+' .'1 * '+,' ,+* &' .' +' - ' &' - , *'? , ' '/+ &' & , '<*+- ,

$ I1' -'+*. 0')* 6 L' <*+- , ' +' / ' .7 .' .' . H *6 .'? &'+< '.++*' * <+* .',*+6' &')+66 ',+*' - H * '+,'&'C 0.+6' .'* .' .' , *' +6' 6 . 6 ' ' ? '7+ .' .' <<*+7

'%E1' -' G< +* '+,' &' -',+*' &' .. + L' G- '%&' -' ' &' .7 0' -+ - . .' - , '%&' -' ' &' ?* 0' .' 0 0' *+F * ' , *'7+ 0'%&' -',+*' &' =+*.' 0' ' &'+ *&< , '/ ' * '%&' -',+*' /,-* 7 ' 0' &' 6 '+,' . / '%&' -' ' &' +*. * ' ' &' + *'&+ ' &' +' 0' ' &' *&+ ,',+*'& ' ? (' .' &' -',+*' / . 0' &'& */+ *'+,' -+ '? *' ' + -& .' ? &' &' - < *

I1' -' ' &'C 0' - ,+6 ' * .' .'* 6 .' +' &')+66 '+,'%* .

51 9%%1 '' +' 6 '=+*.')& - *' .' &' =+*.' .7+- ' +' -+ . *' &'< + ',+*' &' = . 'E *. '? &' &' ,? * ',+*' &'= *.'+,' ' * +? '? &'<+? *' +', . ' &'< * '+*' * <+*

I1' +7 * *',+*' * + ' +,' D* '* .' .'* 6 .' +' &')+66 ',+*', - * '+,' &'C 0.+6

52 2 ==',+*' * . - 0' &' '* '

$N

%&' ' . '+,' '

119I3' &'1 '+,' * 6 '& 7' <<+ .' '6+ &' Q' '& ,'6+ &' , , 6 ' +'/ ' < , .'+ '+,', ' .* ' +,' &'C 0.+6'?& * / 'Q'/ ' &'- ** ' , , 6 ' (?, ' 0' + ' &' .' .* '/ '7* '+,' ' G' -'+,', ; -+ .' , + '+,' &'- ** ' * 6 ' &' .' ' . *'0* '/ *. ' .' 0' '& ' / ' &+ 0&'8 '/ ',+*6 *' * 6 ' &' &'< * + '1 '+,'6+ ' &+ .' / *' +6 '<*+<+* + '+,' &'/ *. ' +? *.' &'* ,'+,',' ' .* ' .' & ' <+ '-+ H . * + ' & * +,' '& '/ ',+*6 * '+*. .' & ' 7 *'. / +*' +? 0' 6+ '7 ' &'C 0.+6' &+ .',+*', ' < -' & ' &' , , 6 '? '< / '& 7'* + ' ' & *'+ '& ' .'+,'+ ' G'< * '+,' &' * ,' < / ' +' & *')* . +* 4,+*' & ' < -' ' &'< 6 '+,'< '+ & *', 7 '< * ' 9' ' & 6/ '<*+' <+, .' & ',+*'* ,'+,' &' .'* ' &' (' /'+*. .'Q' <<+ .' ' & ' 6 '+*' ' & ' &' / '+,' 6+ '/ ' * . - .' +', 7 '< *'-

V' '

5 6 .' +' & 4)+66 ',+*' - * '+,' &'C 0.+6 0

%E1'< + '+,' &'1 * ' .')+ ,' +,' ' .+ .' 0 ,' &'=+*.'> * '/ 0'* .' & *'? ' '* <*, + '+,, * .' /' &'=+*.'> *'?&' & ' , + '+,' * 6 '9&+ .' +' <*+- .' +'. *6 ' &'- , ' 0' & *' '& 0&')+66, ' + *' & * '? '3* ., & *' .' +*' +' &'< *, ? *' ?& -&' ? '* .' .' (' <' /'6 '=+*.'& 0&')+66, + *' .' &'F , + ' .'9,' &' * 6 ',&+ .' <*+- .' +'. ,- , ' &'- , ' +*' + ' .' - ** .' <*+- .' / ' &'- , '? '-+ c' .' ' &' G' 0'+,K * 6

%E1 I' &'=+*.')& - D *' / '+*. *' .8+ * .' &' * 6 ' D' ' '- + -(' +' 6+**+?

4' %: 11 ' ' =1') - ='

9e e ' e * *

&' 8'

5 A15 ' .

%E1' 5+ '- .' .' /, '6 *(.

#%E1' -' ' &'-& *-&' 0+7 * 6 '* .' 0 ' .' &' F , +'/ 0' .' <<1+7'+,'&'- ,' ' &' -'+*. 0' '6 , *' +' /,-* 7' &'-+ , , + '+,', &' ' &'- ' +*; + '9'? '< ' +' &'7+ ' .'- ** .' ' &' ,, *6 7' .' & ' &' -' , *' +6' 6 . 6 ' ? '< ' &'7+ ' .'! <<*+7 '

$ $ f

%E1' -',+*'* , 0' .'* 0 0' &')+66, + ',+*' < H + '+,'C *(' .'7 +'+,' . *'* .' 0 ' ' 6 . .' .' , *' +6', *. *' 6 . 6 ' '? '< ' +' &'7+ ' .' <<*+7

%E1' -' ' &'?& . ** '* <+* .',*+6' &')+6 ' 6 ' .'* .'< ' +' &'7+ ' .' <<*+7

%E1'- ,' ' &' , -'+,' &'1 * ' +,' ' .+ .' 0 ,' &'=+*.'> *'- .' 0 ' .'& ' .7+- ',+*'/+ &'< * ' / 0'& *.'- ' &'.D(+*'. , - ' &'F , +'? ' .'9,' &'* <*, 7 '+,' &'. - .' ' N&' & ?'+,' 3* +-(' ?&+,' 6' &'. -* '-* 7 .' +' /'* . - .'? ' +/ .

+ 0&' +'/ '- .'+*' + ?& -&'E/ 0' < ' +' &'7+ '? '- *H
* .' ' &' ,,*6 7' .' , *' +6', *. *' . / ' '? ** .'
? '0* .' --+*. 0',+*' - 0' '+& ' & ?' +?',' 3* H
+-(' +' ,? *' +4 &'1 * ' < + ' 0 ,' &' G' 0' +,'
* 6

%E1'- ,' &' , -'+,'3 . +' -+'+,'E 0&-& , *' +' +'
&'. - .'1 *',% ** ' 0 ,é' +&' ' 6< *',' 7 *'
- .' 0 ' .'&' .7+- ',+*' & *'< * '/ 0', '& *.'
%&'F , +'? ' .' ,' &'< 6 '6 .'/'&'., . *'
+' &'.+ +*' '6+ ' .'/ '+,' G-& 0'+ 0&' +'/ ' ,'
.'+*' +' ?& -&'/ 0'< ' +'&'7+ '? '- ** .' '&'
,,*6 7'%& '&'F , +' .',' &'< 6 '6 .'/'&'
., . *'0* 0'. ' ?+'/+ .'+'&')* . +*'+,'&'.+ +*'
+ 0&' +'/ ' , .' '< 6 ' '&' *6'+,'&' -','
* 6 '+*' +' ? '< ' +' &'7+ ' .') ** .' '&'
,,*6 7' .' , '&'F , +'? ' .',' &'. , . *'
* , + '? &'&'1 * '+,' **' ')* . +*' +' &'.+ +*'
.'? &'&'1 * '+,' ,+*'&'& 6, ',' '.+ +*'+ 0&' +'/ '
, .' '< 6 ' & *6'+,'&' -',' * 6 '+*'
+' .'/ 0'< ' +'&'7+ ' '? '- ** .' '&' 0 .7

%E1')+6 < ' <<+ .' +'6 ' ' 0&' '-+ (' +'6+**+?

%E1&,' &'=+*.')& - *'/ '+*. *' .8+ * .'&' * 6 '
' '-+ (' +'6+**+?

%:11' ' =1') -
g'é 'é''é GE

5 A15' .

%E1'5+ '- .' .'&' /, '6 *(.

%E1',+*6 ,'. 8 ' '* .' ! $

%E1'- ' &' .6 ,* + '+,'&'-+66+'0++.'+,'5+ '
> *0&'<* , .' .' & '' .'+*. * .' +' ' '&') *('& .'
'&' G', 0'+,' * 6

I1'- ',+*' * 0 0' &') *(' +,', ' + ' .'+&*
-+ * '* .' .'+*. * .' +' ' '&') *('& .' ' &' G'
, 0'+,' * 6

I1'- ',+*' * 0 0' &'<*+- . 0' ' &' , -')+ *'
* .' .'&'=+*.'+,' , +'? &'&'=+*.'+,' , - *' .'
.7+- 4?&+' *'6 6/ *' +*. * .' +' -+ . *' *.'<* < *' '
0 ,é'&' G', 0'+,' * , ' .'&'&'6 ' ' 0&'
'-+ (' +'6+**+?',+*' & ' ,, -

I1'+7 * *',+*' * 0 0' &'<* - K' .'< '+,'&'- *('
+,'<* 7 '-+ 6 ' 0.'&'-+ , + ',+*' < +'+,'C *('
.'7 +'+,'% .'* .' .'* 6 .' +' &'< *,+ ' <H
<+ .' +'<* < *' &' -' ' &' , -')+ *

%E1'* <+*',*+6' &')+66 '+,'1 - + '+,'&'- ,'+,' '
C +G'? .+?'+,'%&+6 ' > -(? ' '&*'&,/ .', 6 '
* .' .'* 6 .' +' &'=+*.'+,'&*' '<* 7 '-+

I1'- ',+*' '-+66 - + '+,'&'* .'+,' &'/ *0&'*+ '
+' &'/ *0&'+,'* 0 ' .'/ **+ ' <+' &' *6'-+ H
.' ' &' - '* <+* .',*+6' &')+66 ' .'* .' .'
+*. * .' +' ' E') *(& .' &' &i')+66, + *'
,*+6' &'/ *0&'*+ '6 ' ' ' ' &' G', 0'+,' * '
6

I1'- ',+*' /+* & 0'. ')+66, *+')+ * '* .

M)%,+*' /+ & 0'+,'&')+ , *+')+ * ' 4

%E195' 8 '? &' .7 -' .'-+ , '+,'&'1 '+,'
* 6 ' '<*, ? -' .'-+ , . * +'+,'&'0* ' / , '
-+66 .'/'&')+66, *+')+ * ' .'& ' '*0 + '
&* '&7'& &*+'<*+7 ' ,, - L' ' ,+' & '&'6 '
'*'<*, ? '/ ,+*' & 6'6 '? &'0* *' ,' .' .7 0'
+' &' 0 '/'<*+, - ,'/ ,+*' &'+& *' * G7'8 . - +* '
.' '< , ? -'+,'&'A44 * -' -' ',*,' ,'+,'& '
+*' - ** ' * 6 ', . 0' &')+66, *+')+ * ' +'/'
'0* 7 -'.+'&*,+*' -& *0' .' /+ ,&' &' .')+6'4
6, *+')+ * ' ' ' 6'-+ 0' . .+'% %+'* < '- '
.' ' '<*+*' -'+,' * 4*. 0' &*+'+*' 6 .' '
&*, 7+*' .'.+'&*/' ' .'+*. ' ' ' 6'-+6'
0' &'+*'& .0'P G-<' ' +' &4<* - *' - - ' .*4'
?* Z' &'<*+, -' ', &' - + ' '? *' ', '& &*+'N+'
'<, ? .'/ ,+*' &')+66, *+')+ * ' /,+*' % '+&*
G7'8 . - + '7 ',*,,',+,',* ,,.+6' ? *'+,' ? ** 4'
? &' & **G7'8 *,. - + ' .'/ ,+*' &'*G7' 0 * é'
+,'/ *0&'*+ ' .'* 0 '? ' & */+ .'*G7' .'
.+'& */'6<+? *' .' / '&'*G7' .0'? &' & *K'
/+ .',+*, .'+'. - .' .'. *6 ', -&'6 *' '? * '
,+*6 * 4' ,' +'/'< *, ? .'/ ,+*' &')+66, *' G- < 0'
&'6 *'+,'% &'P?& *'& *' ' '. -* '+,'+- & '7 '
+'+*' -+6< +'+,'* 0& Z' .'/ , - ' +'?& -&' &'
=+*.'+,' , +' *'& */'6 .' .'-+ , '&'+8 '>#
-+6< ' & *+' G- < 60' ',+', *' ''* 6 '<' &')+6'
6, +'+,' * 6 ',+*' < +'+,'C *(.'7 +'+,'
. ' ',+' G- < 0' &'6 *'+,'. 7+*<' .' '+,'
6 * 0 ' '+'?& -&' ?+'- -'/ - '+, &' ., - 'Q' * '
- - ' '& '6 *'&'=+*.'+,' , +' *'& */' <<+ .'
Q'. - * .'+'/ '&'+ '.0'-+6< ' ' ' 6'-+6 0'
.'& *' '? &'-+ , ',+* .'.+'&*/' 'Q'
2*. ' &'0 * L' ,,0 + '%&((' '& *, *' .' '
-+ ,*6 +'/ '&'/' ,, - ' +'&'< * ' , 0 '
+'< *, ?' & * <+ & ', . 0'- +'/ ,+*' &'*G7' .0 '
? &'&'/+ .',+* .'+'/',+*&-+6 0'+' D'< * '-+ jK'
- * .' ' D/'.+'& */', '6<+? *' '&',+* .' .0 '+'
0* ' - -'+'< *, ?'/ ,+*' %'*G7'-+ * ' .'8 . - +* '
'&')+66, *'& & *+'& 7'/ ' ' ,'+' >

M% 1 2I '?&'&')+66 ,, */')+ * '+ 0&' +'/ '
/+&&.

$)2 9 592%')+ * ' : *' ',*,' *+. - .' '&' 6 '
+,'<+< * ' +', <<+*'& ' ,+*< .'8 , ,. - + ' ?& -&'&'' +< 4'
.'&')*0'?*'<* . 0'+'-7' ,, * ' .' ' '& '
6'(+? .0' .'-+ ,- -'? '&+ 0&' + '+'& 7'/ '
+.0.'?&'&'/* ,'+,'&')*0',+'&*/'& &, .'
&6, 7'&'-+0 +'+,' '- , '&'&.K' '* +'+'
-+ ,- -' ''/' 7*',+'*6+ ' .', 0'&' +?'&'
:+*.' '. , / , .' .' &*'&')&*-&'<* .'+' '-7'
8*,. - + ' +*'&'- *0'+'/'&'+ '6 '+,'(+? .0' .'
-+ ,- -'&'8*,. - + ' .'-+0 +'<% %'<&'&R ',*+6'
&', 7*'-7'8 . - * .'07 '+'&'>, +<' .'&*K'
2,, - '+ 0&'+'/''*, +* .'+'& 6', -'&'+&* .0'*'
(+? '+'/'6 '+,'+' ,'-+ ,- -' .'(+? .0'&'&
%&+ 0&' &', -'&'5 ,+*6 +')+66,, *+')+ * '
&'/ '-+ .'< * '&+*+?'&' , -' .' *,'&'
&'>, +<'&' .' ?&+'. .' (?,+' ,<*' +,+6 (.'+,'-7'
8*,. - + ' .'< * '&+*+?'&' * , '&'&')+66,, *K'
&6, 7' .'&*'* + '&' .' ' ,+'+'+,'+6'<*+,< - '
&'&', .')+ * '6 0&'/' ' , .'.7 0+'+'&'
.0'&'-+ 0'&6, 7'?&'&*'8 ,'/+ .' .'
6 ' ' '&'6 &+.' , .'&&*+',+*' &'< *<+, '&' K'
<*+7 .' +0 &*' ,, - ' .'+?&, . 0'+,'&' W

0 + ' ' & 6' & '& 7'& & * +'<*+7 .' ' , <<+* / '
/ *. ' +' &'= .0 ' .'&,*'+/, *7 .' + '+,'& 6
%& '& 7'& & * +' ('-+0 + '+,' '- , '+,'?& ,+ 7 *'
(.' .' * '/ ' &', 6 '0* '+*,6 ' & ' *' ' ,' +'
, , '& 6, 7 ' .0 ' +', *7) '-+0 + '+,' '(. ' '
+' <*+ + -'. -* ' +,'<+ . 0' +,' &'0*+ .' .' 7 *'
. - '& 6, 7 ' &+ 0&' & ' &'<*+/ + '.+'<*+- .'+ '
<+ ' ?* ' .' &' 6 *' -+ - *' + '& * / ' *0& ' '
&+ 0&' & *'/ '-+6< + '+,'*0& ' & 'E '. - .' .' ,+'
. *6 ' ' ' $!
%&+ 0&' & ' &'<*, '- ** ' * 6 '. .' (' ? '
&' - , '+,'-+ ,*6 + 8 /'?& -&' * , - ' & '. .'0* .'
&', - '+,' &'<++*' / ' / - ,' & '0 *' ,,0 + ' *'
D' +'/ '-+ ,*6 .' . *' & 'K<* - ' & '.+' '6 -&' G -'
,*+6' .'+<<* ,' &' .0 ' ' 7 *
%& ' *' (?, ' '- +6' +'0* ' +' &' .0 ' - - ' +'
< * '/ ' &, ' - - ' ' &'0* 0' *',+' F , .' &'
& ' *' +'/ ' G . .' +' +' - + ' / ', -&' ' *'<*+, - '
/ ,+*' & 6, 7 '?& * / B & '-+ , ' '(.'+,' &* 0' ,+'
& 6, 7 ' .' &' .0B ' *'*, *- .'+' & *'+? '8 . - *
' &')+66 ,, *+')+ * '& '& & *+'/ ' K / *. ' <+ '
&' I + ' .'/ ' &' 0'+,'1 ' * -(+ .' 6+ 0' &'
0* 7 - '?& -&' *' +' / '* .* , .' .'? *' ' ,, -'6 .'
<'/ ' -*+ -& 0' <+ ' &' + & *', 7 * '8 . - * ';+,' &'
$C 0. 6' + '< *<+,' +', <<+* 4 &' , *< .'8 *, . - + '+,' &'
) *0 ',+' & * ', 6' +' - , ' ',+*' & *' -+ - '
,+*' & *'<*+< *' <*+7 -'? '+ ' +'8 .0 ' .'. - .' '- , '
-+ - * 0'/ , - ' .' -+ ,*6 + '+,' , 6 '- , '
, 6 *' - . ' .'+ & *' 6 *'?& * ' &'+ &'+,'< * '
' * F * .' <*+7 . 0' &', 6' .+' +' G- .',+ * '<+ .'
-+ '-+ ,+*6' ' & ' *', ' .+? ' ' &' , * - + '07 ' +'
&')+66 ,, *' / 'C')& * '6' +' W ' ?& -&' - '/'
/ *'< *,+*6 .'? &'0* *' ,' .' .7 0' +' &' .0 '
/ '+ & *' .0 ' & ' &')+66 ,, *
J+*' ' +' &' & ' & * ' _ +'< *'+,'+ *' ?' & ' '6+*'
*- ' .' ' & 0' * 0' & * +' + 0&' & *' +' / '
. *6 .'/ ' &') + , +'+,' * 6 ',+*' < + '+,'
(*(' .'7 + '+,' . '+*' ,' &' FF , +' / ' ' &'
'-+6< + '+,'* 0& ' +' &' & ' &', 6' + 0&' +' / '. *H
6 .' / ' &' =+*. ' +,' , + ' <* 7 7' +,' ' + & *' .0 ''
/ - ,' & ' &'< *'+,'+ *' ?' ', .' ' ' &'6+' * - '
&'6+'+/,- * ' &.'+, ' 6'-+ 0' <- / '8 * ' .'
& * ,+*'+ '<*+< *' +'/ '-+0 +,- .'/ ' & 6
' +' &'-+ , *6 + '+,' , * ' .'- , ' , 6 *'
/ '&'<* , '- ** ' * 6 ' &' - , '+,'-+ , *6 + '
' * . ' (' ? ' .'?& ' & ' & *,, ' .'+ & *' .0 '
6 ' '/ ' '- < / ' +'- , ' &'< * '6 (' 7 *'+,' &'
. , - '0++. ' *.', .'- + ' '- , '+,'0 * ' ,,0 + B
'? ' ' & '.+' '- * +* ' '- +'/ ' . *, ++. ' .'
- * ' ' ' ' '0*F ', - * ',+' '?+ .'/ ' ' G * +*. H
* ' , '+' &' .0 ' ,' & '-+ *.' << ' +' &' *',' .0 '
,+*' & ' ,, - é .' +' +'/ '+/ 0 .' +' * 7 ' '0* '? ' .'
+'/ ' '0* '-& *0 ' .' G< - ' ' << 0' +' &')+66 , '
, * ' .' . 0' +' &')+66 ,, *+')+ *
' .' ' +'6 *'+,'- . ' ' ' * ,+ / '& ' &)+6'
6 ,, * '9&+ .'/ '+ ' .0 ' & * +'' Q*' &' / + 0'<*+H
< * ' +' &')& *-&8 . - +* 'é .'?&+'& 7' & *' ,< - 7'
0, * '? & ' & *' /+ . ' +' -+ - *'? &' & 6' .' *'
<+,' & *' &+* ' & * ' .'- , ' & *', - '/'< ' '
G - + ' ' ,+'/ ' -'+,' *& 6 ' &' , - '+,' -'
' .0 '-+6< ' +',- . ' .',+' & , ' +' - , '+,'
-+ 0' &')+* 6,, *')+ *',+*' & '< *<+,
' +' 6 , *'? & ',+ * '<+ .' -+ '?& -&'/ '* , ** .'
+'+ &'+,' * ' ' '& 6/ '-+ - 7 .' & *' ' +' ' 0, * '
+*' .0 ' ' -+ .'/ ' ' - < / ' +' .6 , *' '+ &'
,< - ' ' * / ' 7/ ' +' G- . 0',+ * '<+ .' -+ '
'& & * +' & '& 7'/ '' ,+' & ' & * ' ' +' & ' ,'0*+ .'
+,'-+ 0' &')+66 ,, *+ ',+*' & '< *<+,
.' +?' & *' * 6 ' + '. 7+*- ' .' ' +,' 6 *H
* 0 ' ' +'?& -&' 6+,' 8 , ' .' * ,+ / ' &')+66 , '
, *' & ' / ' & & * +' .0 ' <* 7 7 ,+*' & , '6 *' *'
+' + ' +,'0* ' -+ , F - ' .' 6<+*' / ' ,' ? ' & *'
* -(+' &'7 * '+,'- , ' .'- *- 6, - 4/ '. ,, * ' ? '
.'-+ , + '+,' 6+,' + '+,' &'?+* .' &'. ,, * - '+,'
+< + '+,'/+ &' ? *' .'. 7 ' ' &, '6 *' .'9&'
90* ' 6/ *'+,'7+ 6 ' & ' '?* ' & * <+ ' &'6 '
, / ' .' *- - ' & * ' -+ .' ' 6 ' /'8 , '
&+ 0&' & ' &'6+,' < , .' .0 ' .' &'0* ,' ? *'
*'& *. ', ,, - '+'. *6 '&, '6 * '.'-+ , F '
&'=+*. ' +, , + '+ 0&' +' /' &' + '.0 '<* 7 7'
& * +'+*' & ' &', 6'6 '/'* 6 '+' ' ,, 6/ '+,'. 7 '
?&+' + 0&' +'/ '? '7 *, .' ', -&'F , + 0' '? ' '&'
/ 0 0'+,/ *' 5 ,+*6 + 0

M 51 2I '& 6/ '+,, * .' +'& '3* - ' & *' 8, '
E 0&')+66, + *' .' &' 5 0&' E+ + * / '1 '
+,' * 6 '/ '&' & *,,'+,' &' &* ' .' 0, * '
+,' &' > *0&' +,' *',+*' . 8+ 0' &', .' &*' .'
> *0&',*+6' &')+66 ,, *+'+,'3 ,0+?

'D59I3' &' 6'+,'<+< * ' & *'? ' ',< * '8 *,. - + '
' -&'. +- ' G *- .' / 4+,, - '?&+'& .' &'<+? *'+,'- * 0'
.' G+*- ,6 ' %& '8 *,. - + '? ', <<* ,, .' / ' &' /+& &'
0'+,'<+< *'é > ' <,-+< - ',&+* ', -- . 0' &' > T +<'
'& *', 7 * '. +- , ' '< - '+,' & *' 2,, - ' <<+ .')+6H
6,, *'?&+,'86 ,. - + '? '/ ' & 6' . *, ++.' ',< * '
.'? '<*, - < '.0, 0 .',+*'<*+- ,' ' & ' &'= 0 '
6 +'+,'-& .* '. 7+*- ' .'6 ** 0
%& ')+ *'& 7 0'+ -'/ ' , / & .' . /+*. .' ' + & *'
& 7 ,*+6' & *' * ' + ' .'. ,0 ' .',+'* - 7 .'/ ,+*'
& 6' 5'- , '?& & *'-7 ' - , -('+*')* 6 '+,'?& '
6<+*' ,+ 7 *' ? &+ ' . , - + ' +*' * 0 *. ' 0 ,' ?& '
, 7 *'* <*, + '& 7'/ '6 . '/+&' +' &'C 0'+,'& '
5 6' .' +' &'C 0' .' * 6 é .' &'C 0'& &'
07 ', 7 * ')+66, + ',+*' * 0 0'+,' & 6' .'07 0'
& 6' * - + '?& -&' 7 '?& ' <,-+< - '<* 7 .'? * '
('+'-+ , . , + ' .' & ', * - + '07 ' .'* -+*. .' &'
&'/++('+,' . * '+,' &' , + ' > '&'> &+<'P& *'
,+ . *Z E '. , . 0' & *'?*+ 0' .' 8, - ' & '-+ H
'? &+ '* 0 *.' +' & ' , * - + ' .'? &+ ' <<+ H
0'& / ' .'&+ ,'+,, - *' +'&+ .' & *' -+ * ' .'07 '7 G H
+' +' ' & *' 0&/+ *
+< * ' .' <,-+< - '/ 0'/+ &' +?'/+ & .' .',+' &' '
+,'& , '-+ * ' - , 0' ' '& 6/ '* <*, .' & ' & , '-+ * '
+ 0&' +'/ ', <<*,, .' .' & ' & *,, ' .' 0, * '+,'/ *0& '
' & *' * ,<- 7'8 *,. - + ' 6 '& 7'<+? *' +'-+ , *6'& '
, 6 '+,' &, '? & ' & *' /+ .' ' &')+66,, *' . .'
,+*6 * ' '+ & *' - + '/ 0' '-+6< ' +' & 6'D' .0 '
+*. *' ' 7 *' & '? *' +' &')+66,, * ' .' ' +' &, '
- + '+,'. 7+*- ' 0 6 + ' .'/ *. '?& -&'? *'<*+H
< *' +' &')+66,, *'+,'1. / *0&' ' 7 *, ')+66,, *'
&<,'86 ' + ? &, . 0' -+ '-+6< ' .0 ' +' D'
, -&' - +
: & 7 *'- '/ ', .' ', 7+ *'+,' &'.+ 6,, *+'+,'1. H
/ *0&' ?& -&' ' 6. *' &'7 ?' .'- '/'<* , '. * - .'
/ '&' , + 'é A '&')+66,, *+'+,'3 ,0+?' &-&' ' '
0* '., -',*+6' &' , + ' .'+,',+' *0' G '+,' ' ,'
-+6<* & . 0' P/ , .' + &*, * Z &' ?&+ ' , *' +,'B *'
?& -&' /+7' &* ,-+*' 6 ' 0&' .'+ '+,' &'6+,'
-+ , . * / '9&* ' &'C 0.+6' ',+' / , 7' .' -+** 0 / '
&', ?' . , . *' 7 *' (?'+,' '<*+- ,'/ ,+*' & 6' '&'
/'<+ . .' +*' -& *0 .'? &'&+* 0'é I &*' & 7' & ' '
-+ , '+,, - *'? & '&',& *'+,' *é .'&'/ *0&'+,' *'
?& -&' *' &'- *'+,' &'9&* ' ' ? ',+ *' 6 ',*+6'
3 ,0+?' &', '+,' &')+ 6,, *+ *' .'/ + .' *' &'
9&* ' G .' /+7' &* '6 4 +? *.' &',+ &',+' &+ 0&' '
< *,+ ' & '. , -'? *' 0 '- .'/ ,+*' &')+66,, *

; ', .+6' *' ^' '? *' 6 , ,'+<<* , + +'+/ 0'& 6' +' ,? *' +' & ' -+ *'?& ' & *' *' .0 ' +*. *'? & ' & ', * ' +'?&+6' &'< *, *' 6 ' << 2, 6 ' 6 -+ ' < *, * ' ?& ' & ' .+' *+' <* 7 ' / ,+*' &' .0'+*. *' & *' & *,,'+*' 0 * ^' .' 7 ' , *' - + ' & 7' / ' &-+ , ' / ,+*' & 6' & ', .' +' 3 ,0+?',+*'. -* ' .' <+ ' .+*, + ',*+6'& *. ',-&++ ' >+ '+*' ' . ', +?'?&+'- ' ,, G' &'7 *' ' *'+,' & ' 6 '?& -&'< , '+,'-+ *,' & * ' '<* - < ',+*'- 0' .+' ' + & *'-+ * ' 7 ' &+ 0&' G- < +' '< . ' .' , ,, ' - -'+,' &' - + ' / '<*+<+ .' %& '!)+66 ,, *0' .+' ,+' ,, 6' &'<* 7 .0' +' & 6, 7 '+,'* . - 0' .',+6 6 ' ,+<< 0' G - + '+,' & *'+?'. -* ' 7 ' , *' G* - ' .' <* - < ' *'07 ',+*'?& -&' +0 & *' -+6< ' +' ' , *+ *' . - * ^' +' ' & 6/ '+,, * .' ,')+66 ,, *'/ ' *+' +0 & *', <<* ,, .' & ' &' & *,,'+,' *' .'& '. < '! .' &' 0 * ' +,' *' ,+*'; & *' * ,< - 7'8 *,. - + ' / ')+66 ,, *'? & ' & *'+?'/+ . 0

25'151''' & ' &' - ,,' ' &' , -'+,' &'=+*.' *7 ' ' 0 ' &'1 '+,' *&'/' G'- .' , *' &' - ,' ' &' , -'+,'&'1 * '+,'' &.+ .' .' & ' &'- ,' ' &' , -'+,'C *'+,' +*, + '/'- .' G' , *' &' - ,' ' & , -'+,'&'=+*.' *7 ' '

%E1'- ' ' &'1 * '+,'' .+ .' , -'0 &'=+*.' > * *' - .' 0 ' .' &' .7+- ',+*' K' +&' & ?' +,' K3* +-(' / 0'& *.'+ & *' . +*'. , - ' &'F + '? ' .'9,'3* , +-(' .7+- ' &+ .'/' +? .' ' 6 '+' ' &' <*+- ' +*' + ' .'- ** .4%7' &' 0 7'%& , *' '=+*.' > *'0 7'%7'& ' ,,? *' +' &'1 * '< + '? -&'? *'K* . 4$ ' # ! $ 25'151''' 8 ' &')+66 ' 6 '/ ,+*' .' , *' ++' +' 5 +**+?' ' ,' '

) (%' &'=+*.')& - *' / '+*. *' .8+ * .' &' *C ' ' /+ . ' G' ' ' '- +-(

%:11' ' =1') - '
$ 9'é 'é ''é *

6;ć 8'

5 A15 ' .

%E1'5+ '- .' .' &' / '6 *(.

%' '* <* +'/' ' 6 '5 6 '+,'> 6, '+,'& ' . H <+ +' &' 6 '+,'. - * 0'& ' < -'7 - ' ')+6* , + *' ,+*' &' & *'+,' *&' &', 6 ' 6<+ .' <+ '& 6',2*'& ' /, -' ? '. -& *0 '

25'151''' & ' '- '/' .. .'+' *'. 7 *6 -' <+' &' < +'+,'9*7 '+,' * ' & ' '/'/ '<* 8 . -'+,'&'= *.' +,''* 6'6 ** 0' ' --+*.' p

%E195' '&0&')+66, + *' 6+7 .' & ' &' - ' ' &' -'+,'&'1 * '+,'' .+ .' 0 ' &'=+*.' > *' &+ .'/' .' . ' & *' +' /' * -+ . * .' /' &'=+*.'+,' , +'+*'/*+ 0&' '/ ,+*' &' G' , + '+,' * 6 ' '/' 1 * '+< + '?& -&'? ' 0* .'+'

$
25'151''' & ' &'< / -(', ' ' 8+ .'/' -'+,' *H 6 '+'/'+/ *7 .' &' &*.' & * .'+,' 7 *'6+ ,&'/' +/ *7 .'+ ',* . ' G'? & ' &' +? ' .' / */'+,'1.' .' & ' 6 +' & *+,'/'6 .' +' &'6+. * +*'+,' &'<* / *' +,'1.',+*' & ' ,, -

&

%E1'- ' ' &'<*+- . 0' ' &' , -')+ *' .'+ & *')*6 ')+ * ' * <+* .' .' * .' .' &'F , +' .' <<*+7'+,' &' < *'+,' &' -'+*. 0' .7+- ' .'<*+*' +'< .',*,'77'7+- ' .' & *, *' +'.* ?' ,+*6 + ' +,

& *' . / ' '+*. *' +' &'* -+*. 0' & *+,' 4 &' /++(' +,' ' .8+ * D'Q-'+*' + '? '- ** .' ' &' ,,*6 7' .', *' +6' 6 . ' &'F + '? ' .' <<*+7'+,' & ' - ' 06 0'&', +,' / ' , *'+*'&+' .'- ** .' ' &' 0 7' .'&'- '. ' --+*. 0'%& ' &' -' * .' 0 '? &'&' 6 . 6 ' .'&'F , +' .' <H <*+7'+,'&' -' ' 6 . .'+*' +'? '< ' +' &'7+' .' - ** .' ' &' ,,*6 7

%E1'- ' 0'&'< -'+,'&'-& *-&'% ' -'* ? 0'&')+66, +',+*'< +'+,'(*(' .'7 +'+,' .'%&' -'-+ - * 0'&' : . ' *6' %&' -' G . 0'&'' < *+ '*0&' '< *+ .0' . ' %&' -'+*. 0'&'=+*.' +,' , +' +' .7 '<*+- , '? &'+< '.++*' %&' -'+*. H 0')*6 '<*+- , ' +'/' .7 .'? &'+< '.++*' .' &' 5 , - +' ,, 7+*'+,'&'1 * '+,' 7 '=+*.'<*7 ' 0'? *' + -& .'? &'&' - < *

I1' -' '&', ' .',+*a * '* .

%E1'- ' '&' .6 , * +'+,'&'-+66+' '+,'> *0&' *+ '* .'< ' +'&'7+ ' .' <<*+7

25'151''' & ' ' -'* ? 0' ')+66, +*',+*'*0 H +'+,' .- +*' ' &' *6'+,'&' -'+,'/' * 6 ' ,' 6 '6 .' +' -&'< * + ' ' &'C 0'&D'/'< .' +' 6'/'<* < * .' .'/*+ 0&' '+'&' G' 0'+,' * 6

' 1%9%92 I',+*' &'1 * '+,' +* + ' ,,'&' * 0&'+' &' 9 '+,'2*(' .'q .'* .' .'&' 6 '+*. * .'+'/' 07 ' <' +'<' ' .7+- '&'&'6 0&' ' .' , *' ' 0 '&' G c 0'+,' * 6

25D1E1''' & ' &'< / -(' - ' * .' <* .'/' -+ H . * .'/'&' * 6 '/ ,+*' '<*7 '/ , '?& ,+ 7 *' .'& ' ' - '+7 * * ' .'< + '/'-+ . * .' --+*. 0' +'&4 6'+,'<* , 0'&' 6 ' ' * 6

I1' -' 6<+ 0 ?+'< '+' &'< '+,' ',+ .'? & '&' +? '+,'1.' .', / 8/' & *+,' +'/' G - .',+*' &'/ &++,' +,'&'0++.'+? '* .' # ;

%E1'< +'+,'9*7 '+,' * ' '/ & ,'+,'&'= *.'+,' '* 6',+*' &+*S 0'&' '+,''< *'+,'& ' '+'< '&' . /'* .'? &'&' ,? *' & *+',+*' &'=6*.' .'= . '> F &+ * ' .'&'< + *' &+*S .'+')** '+' ' <*+- '+,' ' 6'+,' '. * +*' --+*. 0 ' .' '- ,'+,' &' .6 * +*' *, 0'+'-+ - **' &'=+*.'+,' , +' 6<+? * .'+' <<+ ' ', '< * +' '?&+, ' 6' &' .'<*+- '+ 0&'+'/'< * ? .'

%E19'5' .7+- '. * .' ' *-(' E+6' 6 0&'/'+*' . * .'+' , '& 6' ' &' * '+,' I 7 ' ',+*'& 0&' * +' ?& ' ? '0* .

' 1%9%92 I'+,'&' .' ',+*' .7+- '+'< .'& ' . H , -'Q-'* .' .' '? ** .'0* .'+' '5+/ *')+ ' ' 7 .'%&+* ' .' K%&+6 ' (' .7+- '+'< .'&'< H + *' 0 '. , -' --+*. 0

%E1'< +',+*' '8 ' '+'/' ' .' , *. /'&')* . +*' 0 '&' G' 0'+,' * 6 ' .' '& 6 ' 6' 0' G - " + '
$

%E1'< +'+,'&' 1 * '+,' 7 '=+*.' *7 ' D' 0 ' &' 1 * '+,' *&' * .'? &'&' , *'6 . ' & *+',+*' &' 1 * '+,' *&' 4' $

%E1I'&' +*.')& - *'/'+*. *' .8+ * .'&' * 6 ' ' '- + (' +'6+**+?

%:11' ' =1') -
9e e'e * *

' 9 44 $

5 A15 ' .

%E1'5+ '- .' .' &' /, '6 *(.'

%E1',+*6 *' . ' ' *' .

%E1' *+F *' &' , -'+',3 . + ' -+'+',E 0&-& , *' 0 ',4 +&' ' +<, *+;' 7 *'*' .' <<*+7

' 1%9%92 1',+*' &'1 * '+;' ,+*' &',+*' G- < + '*' .

25'151'' &' &'1 * '+;' 7 '- ,' 0 ',' &'1 * '+;' *&'/ '-+ . * .'/ ,+*' '<*7 '- ,'?& ,+? &'

%E1' -', 7+*' +;' &' +?' +;' 1 .',+*' ?+' < ' + &' < ' /*+? &'? &' +?' &' /' */' +? *.' &' . ' +;' &' ,* ' 0' &'0* ' / ',0Z'3++.' +? ' * .' 0 ' .' *' +6 '. ' <<*+7 ' +' &'7+ ' .' <<*+7

25'151'' &' &'1 * '+;' 7 '- ,' 0 ',' &'1 * '+;' *&'/ '-+ . * .'/ ,+*' '<*7 '- ,'?& ,+? &'

%E1' -', 7+*' +;' &' +?' +;' 1 .',+*' ?+' < ' + &' < ' /*+? &'? &' +?' &' /' */' +? *.' &' . ' +;' &' ,* ' 0' &'0* ' / ',0Z'3++.' +? ' * .' 0 ' .' *' +6 '. ' <<*+7 ' +' &'7+ ' .' <<*+7

'151 2=R1'' & ' &'1 * '+;' 3 - 6' - ' ' &',+*' ' ** '0, .' &', 7+*' '< 6 '+;' &' /' ' +' &' 6' / ' &')*+? 'p & ',+*, * '/ 0' +?'* -' .'Z / '* -+6H 6 .' +' & ' ' ? &' * 0 *.' +' &'<* 8 .' - ** .' / ' &'1 * &*+?'& '<< * -' ' * 6 '0 ',' &' * 0+ ' ' &' 0' +;' &' ? ',+*' - * 0' &' *+ ' ' * 0+ ' ' &' *9

' 1%9%92 1',+*' &'1 * '+;' ,+*' &' G- < + '*' .

%E1' -' ' &' ,' .' ,+*, * .' 0 ' ' + & *' .' 0&'+;' &' ,-' ,+*, ' .' 2*. *' & ' 0 H 1, '+;' * 6 ' <<+ ' .' 2*. *' & ' +0&' +;' 1. / *0&' +' 0* ' +' &' ' + ';' &' * ' +;' 1. / *0&' +' 0* ' +' &' ' + ';' &' I ?')& *-&' +;' &') + 0 '+ ';' &' ' & *' +* ' .' / ' ' '

I 1' -',+*' -+ * - 0 0',+7* 0 ' * .' .' * 0' +' -+6< ',+*' & ' ,, -' * .' .' , *' +6' 6 . 6 ' '? '< ' +' & '7+ ' .' <<*+7

%E 1' -',+*' & '* 0& '6 (0' +,'= '-+ &'* <+* .' 0 ' ,*+6' & ')+66 ' .'* .' .8 , *' +6' 6 . 6 8' ' ? '< ' +' & '7+ ' .' <*+7

25'151'' & ' & ' -',+*' 0' & '< -' +,' & '-& *-&' $/'< / & .' .'<* .

I 1' -',+*' * - 0' ' , -+*',+*' 6 (0' / , '*H <+* .',*+6' & ')+66 ' .'* .'< ' +' & '7+ ' .' <<*+7

%E1')+66, + ',+*' * 0 0' +,' . - +* '/*+ 0& 4' ' .'* .

%E1' . - 6 ' ' & ' -' +,' & *' ' .7+- ',+*' & 0&' * + ' ,'E .*' I 7 ' '<* + *' ? '- D .' .' & ' . - 6 '* .

' 1%9%92 I' +,, * .',+*' & '< ' ? -'* .' .' & =+*.' .7+- ' .' & ' .7+- ',+*' & '< '/ 0' & *. + ' & '0*+ .'* <*, .' & *' ? ' ' G- < +'0* . +' & '< 6 ' +' - '& '? , '0 5' +' 6+**+?4' .' & < ' ' & '6 '86 '* 6 . .' +'<*,+ '
4
%E1I' & '=+*.')& - *'/ '+*. *' .8+ * .' & ' * 6 ' ' ' -+ (' +' 6+**+?

%:11' ' =1') -
9e e'^ * e

44'8 8'

5 A11 ' .

%,81'5+D'- .' .' & ' / '6 *(.

%E19'5' ')+66, + *' G- .' & ' /, -'+,' & '=+*.' I 6' '* 0 *.'+,' & '-+ +'+,'& ' . <+, +

%E1',+*< *. ' '* .

9%'/ 0'6+7 .' & ' '. , 5' = *' &+ .'/ ' ',*+6' & ' * 6 ' +' & ' ' & ')+66 ',+*6 * ' 6 .'/ ' & ' &* '1, '7 '%& '=+*.') *6 -& '%& '= *.'+,'3* ' Q' ' : 6' E 6 +' 0* .' <+' N'.* ?' ' *',+*' & ',, -

25'151'' & ' -'/ '/*+ 0& ' ' +'6+**+?'<*+*+0 0' & ' . ' <<+ .',+*' & '6 , *' +' (' & '+ &

'=9 %'+,' & '5 , - + ' ', 7+*'+,'<*7 '< * + '+*' -+*H <+* + ' +'/ '< ' ' & ' * 6 '* .' .'07 ' <' +'/ ' '/ ' & 'C 0' .7+- ' .' + - +*' ' +'6+**+?';

%E1')+66, + ',+*' * 0 + '+,' . - +* '? '* .' 0 ' < ' +' & '7+ ' .' <<*+7

%E1' -',+*' * 0 + 'Q' ' ', 7+*'+,'< * ' <+ '<*'+* ' Q'<* - < '07 ' +' & *'<* . - , +*'* .'7+ .'Q' <<*+7

25'151'' & ' G . *' + *+'+,'> *-*+, '& 7 0'< ' ,*+6' & ' <*+- ' '& ' +,, -' +,') *(' +' * 6 ' .' , + ' & 7 ' ' * -+66 . +' +,' * 6 ' +' & 'C 0' ',+*' * < * 0'& '. 6 .0 '/ ' & ' +, '+,'& ' .'+,, -

%E1' -' ' & '-+66+'0++.'+,' > *0& '*+ '%& ' -' ', ' .',+*, * 4' %& ' -' ', 7+*'+,' & ' +? '+,'1.' %& ' -',+*' & '*0& '6 (0'+,' -+ & '%& ' -',+*' 6 (H 0'+,'/ S '%& ' - ,+*' -+ * .0 <0'+,',+** 0 '* . '%& ' -',+*' '-+66 - +'+,' * .' +'/ *0& '+,'* 0 ' .'/ *' *+ ' %& ' -',+*' ' '6 , -+*' ' & ') . '+,'= &' .' & ' -',+*' & '?++ '6 , -+*' ' I ? 6 ' ? *' ' + -& .'? &' & ' - < *

%E1'5 <+*',*+6' ')+66 '+,'1 - + ' '& ' +*'+,' & '/ * .'?* '+,' & ')& .* '+,' '%&+6 ' ? *'+,'C *(' , .'* .'< ' +' & '7+ ' .' <<*+7 ' .' & ' +*'. - * H .' --+*. 0

T=9 %'+,' & '/ * .'?* '+,'?& -&' & ' .*' ' <<*+7

'9 2 9%92 I'/ 'E 0&' +6 *70 '+,' '* 6' +' *' +& ' * + '+,' J + / * '+,' & ' .'+,' 3 & * 'Q-'. .' '1. / *0&' ' ' 9 j)& * *' . *' & '3* ' ' ', 7+ *'+,' ' +& ' * + '+,' & ' .' . '+,'3 * '. .' J /' 9' 96 j ' <+ ' & ',+* .')& * *' *' ' 96' j < - '5 + *' ', 7+ *'+,' -& ' * + ' ' ?, ' + '.' & *' +'4 & ' .' ' +& ' * + '+,' J + / * ' < ' ' j ' <+ ' & ',+* .'5 + e' ' ' Q9 j ')+ * -'+,' 0* 6 ' / ? G' & ' .' -& ' * + '+,' J + / * 'Q' ' 7 .' (- D+-&' *7 +*' +'%&+6 '1 *'+,' *+' '69' 6 ' j)& * *' . *' & '3* ' ' ', R/ *'+,' & ' .' ' 7 .' a3 D+-&'+,' & ' .'+,'3 * 'Q-' 0' ' 66 j '+' & ',+* .')& * *' 0' ' j ')+ '/' 7 * '< * + ' +'?&+6' & ' .' *' -& '? ' *. - .' '6 ' 'Q' * ' 5 - + ' / ' & ' .' *' -& ' * + ' ', 7+ *'+,' & ' .' ' R .' -) +-&' ' ' j)+ * -'/ ? G' +& '=+*.'E ' * . &+ 'Q' & ' .' ' 7 .' -) +-&' ' & ' . '+,' & ' . ' I+7' ' j ' ', 7+ *'+,' & ' .' ' 7 .' -) +-&' *' ' 4)& * *' G6. *' & '3* ' ' ', 7+ *'+,' & ' .' ' 7 .') +-&'+,' & ' .'- .' * & 'Q-' R *' ' j ' <+ + '/ ' & ' .' ' 7 .') D2-&' +' *0 * ' 1 +' & ' + 'Q' + & *'+,' & ' .' +,'P8++. * ' ' ' 6 j ' <+ ' & ' .' ' <+ H + ' ' ' ^j 5 ,- +'Q'')+ ,*6 +' +,' & ',+*' .' * 0& ' ' , 7+ *'+,' & ' .' *0 * ' 1 +'/ 'C 0'

)& * '99' 0' ' j >+ .'+,'?) '0* .'/ ' & ' .' ' 7 .' @) D+-&' ', 7+ *'+,' ' ? *'% '+ ' ' ' 6 j ' ? *'& *' , '+,' & ',+* .' ' * ' ' '9 6 j ' <+ +'0* .'/ ' *' 6 'E 6 +' +,' * , .' .'%&+6 '1 *'+,'E .. 0+* 'Q-' ', 7+ *'+,' & ' .' ' 7 .') +-&'+,' - * ' '* ',6 &'+,' & ' .'+,'I ?'> * 'Q-' ' 'Q' 0' ' j ' <+ K' & ',+* .' ' <+ + ' 0' ' j ' <+ +'0* .'/ ' & ' .' ' 7 .') +)&' ', 7+ *'+,'= ' : *'& '+ '+,' & ',+* .' '* ' < ' ' 9 j*1 ' ? *'& *' ' +,' & ',+* .' '* ' ' - ' >

%E1' -' '*? < 0' .' *-+6+ 0' ? &' . - * .' * +*'* .'7+ .' .' <<*+7 ' $' $

25'151'' & ' & '< +'+,' & '= *.'+,'= 0+ '/ ' .' ? * .'/ '& '-* . +*' 0 ,' +'6+**+?

' 52 1)%' +,, * .'/ ' '+- +*')& 6/ * .'* 6 .' +' -')+66 ' +' -+ . *' & ' 6 ' .'* <+*' +' & ' G' , + '+,' & '+*' '+& *' ? 0' * 6

%E1' +'+,' *6 . -(' E .+ ' .' & ' , 0 ' & '+ ' '+,' & ' 0 ',+*' .* 0'+,')+ & ?0& '* .' .'0* .',+*' ' *',*+6' & '.

T: I%2' E' 3* -' & *' '& 0&')+66, + *' .' # $ ' & '+& *' 6 6/ *'+,' 'E+ + * / ')+ *'+,' *& 6 ' '%&' << - + '+,' *6 . ('E .,+ '6 & 6 - ' '=+ .+' .' ' : 6' E+0' .7+- '& ' -+< * *' .' * , '

E 6/ ' & ? &

%E %' & ', .' *6 . ('E .,+ '& '? &'0* '< ' .' . , * ' ',+ .'+ ' .' 0 ' .'. 7 -',+*' .* 0'+,' -+ , ('6 < ' .'+& *'+,' & '(. ' .',* 0' & 6

* !+,' ? *' G- . 0' / ' 7 * ' , *' ' &' . 7 - ' .' 0 '& & * +' 6 . ' , ' +,' ,+*' & ' .' ' ,+ ' 6 -&' & 4?8 &' ' ' < ' .' , 6 ' G< - ' &' ' / ' ' '&+ * ' 6 ' +' ,* ' ' -+ <+' +,' 6+* ' ? *' & ' 4 + & *' 0 '& & * +' 6 . ' , ' +,' ? '.+ ' ' ? (' '& ' / ' * . ' ,+ .' / ' G< * - ' 6+ 0, ' & ' , ' < *' < ' ')+* ? ' .' + & *' < - ' ' 1 0 .' ?& * <+ ' ' & ' < , .' & ' 6 + ' , -* .' 8 , ' +' 0* '& ' ' < '<*+& / 0' ' < *,+ ' ? & ' & ' .+6 + ' +' 6 (' , 'K/,' & ' 0 ' ? &+ ' & ' ,< - ' - - ',+*' , 7 * ' * ' 6 + .' & * ' .' / ' & ' < ' .+ ' - .' -+ .' , ? '' ' 1 .' .' 9* R .' ' + *' << - ' (+? 0' 7 ' ? ' & ' & ' - ' .' &+ +68 / ' C 0.+6 ' & ' + ' . < . - ' <+ ' +*' - ' ' ? ' / ' * 0 '*+' & ' ? ' +,' 1 0 .' .+ ' & *,+*' & *0/ ' ..* , ' E 6, , ',+' + *' 3* - ' .' & ' + & *' &+ + * / ' 6 6 / * ' +,' * 6 '* <* , &0' & ' & ' 7 + '4 ' & ' <*+. - ' +,' & ' + '/* ' .' & ' & * <+ ' & ' & ' / +? .' ' 0* ' . ' +,' /+ *' .' 6 ' .' / ' '7 * ' 0* ' G< - ' / ,+*' & ' -+ .' -+6 ' +' & ' * ' < *, - + ' .' <* - - ' +,' & ' , 6 ' ?& -&' ' 0 &' / ' 3+. ' / , 0' <+ ' & ' . 7+ * ' & ' & ' +?' .+ ' $.' ' +' + ? 0' / ' . , *+ ' +' -+6 6 - ' & ' & ' 7 + ',+*' & '0++.' .' / , +,' & ' C 0.+6 ' &+' ? & ' .+ '& 6 / ' -+ - 7 ' & +' < *,+ ' + 0& ' +' / ' +? .' +' 6 (' , ' +,' & ' 0 ' +*' ,+ +?' & ' G 6< ' ' 6 (0' +*' <* , 0' +,' & ' , ' ,+*' ' - * ' ^ -' +,' * ' ? &+ ' & ' < - ' - - ' +*' & ' - - ' +,' & ' ,.' : 6' E+0' & ' -+ < * *' .' *

' ' & *,+*' < ' + *' 3* - ' .' +< ' +' (' & ' <* 6 , ' +' + *' 0* - + ' -+ , . * + ' .' +' +?' + *' < + *' +*' ' < *,+ ' 6< + .' / ' ' +', ' <' .' <_ - , ' & ' ,+*,.' 7 + ' ' ' < - ' +,' & ' C 0.+6 ' ' ? ' 9& ' & << ' +' / ' 6< + .' .' +' <*+& / ' .' . ,-& *0 ' ' < *,+ ' +' 6 (' , ' +,' & ' 7 + ' ,+*' , -&' ' * - +,' 6 ' ' + * 3* - ' .' +< ' 9& ' & (' , ' ? &+ ' ' < - ' ? ** ' ,*+6' ' +*' ,+6 ' <<+ .' / ' ' .' +' +*. ' & ' 6 * %' +' / ' 6 . ' , ' +,',+*6 (0' & ' 0 ' ,, - ' +' / ' <+* .' - +6 ',* & .' & ' < *,+ ' +' / ' 6< + .' +' G- .' ' 0' & ' 6 / *' +,' ' * ' +' / ' ,* ' +,' G ' & ' 6 * ' &.' , *7 ' / + 0 0' +' , - +* ' * ' .' + *' 3* - ' .' =+< ' < + *' & ' 7 *' <*

1-&' ' 8 &

%E195' '& 0&')+6 6 , + *' Q' & ' 1, ' * 6 ' +' & ')+6 6 ' +,' * . ' +' -+ . *' & B< + ' .' +' * <+*

%: 11 ' ' =1') -

9é 'é ' 'é *(e

1 . ' 8

%E1' =+*. ' &.' + & *' 6 6 / * ' +,' & ')+6 6 ' ,+*' * . ' .+ ' , .' & ' . , * ' +,' & ' < + ' * ,+ / ' .' .+ ' & *,+* ' +,, *' & ' , *. *' -+ , . * + ' & *+,' +' & ' *

13=9I%2DI'9' ' ')

1 . ' ' 8

%E195' '& 0&')+ 6 , + *' Q' & ' 1, ' +,' * 6 ' & 7 ' 0' -+ . * .' & ' < + ' Q' * <+* ' & ' 0* ' & ' . * ' +,' & ' < + ' Q' <<*+7 ' +,' & ' * <+* ' .' . -& *0 ' & ' , 0' +,' & ' ? & ' 0 ' K/ ' ' + & *' < * + ' & ' & ' < + *' ' +*' & ' , 0 ' ,+*' ' * ' , *' & ' . ' & *+,' ? &+ ' & ' +*' & *' < ' ? ** ' .' 0* ' & < + *' Q' & ' ,+*, . ' & ' <* 7 .0 ' +,' ' , - +* ' +' & ' ,, - ' ? & ' * <* ' , .' . * 0' & ' ,.' 6 ' <*+7 . 0' & ' < +& *' +*' & ' , 0 ' ' <' & ' ?+*(' ? & ' *' ! ' . ' +,' & ' .

%: 11 ' ' =1') -

9e e<e * e

%E1' + ' +,' & ' = . ' > ' * .' .' 0* .

I 1' - ' ' & + ' +,, - ' .' ' + & *' - ' ' & ** 0' .' 6+ .' <* .' .' +*. * .' +' ' ' & ') *(' & . ' ' ' +' 6+**+?

4%E1' =+*.')& - +*' & 7 0' * 6+7 .' / ' * + ' +,' ' . ' <+, + ' & *' & 0&')+6 6 , + *' 6 .' & ' 1 * ' +,')* ' , *.' +' <* .' ' * 6 ' ,+*' & ' . ' ?&+' --+*. 0 ' ++(' & ' -& *

%E1' - , ' +,' & ' 1 * ' +,' *0 ' & ' R -+ ' +,' */ & ' & ' =+*.') *.*+, ' ')+D ') 6</ ' +,' / * -& ' ' +,' & ' +*' +,' & ')+ .0 ' +,' , - ' ' ' - 4') 6</ ' +,' -& /* -(' *')+ ') 6</ ' +,' *. (' & ' = *.' +,' - + & ' . 6' ' * 6 6+ .' +,' 00 ' G . *' < ' +,' = ?-& ' & ' = *.' +,' * &-& ** ' +& ') 6</ ' +,') **-(')+ & ') 6</ ' +,' *. ' +& ') 6</ ' +,' ' *. -& ' 6 ') 6</ ' +,')+** -& 7 ' +& ') 6</ ' +,' C . 7 ')+ ') 6</ ' +,' 3 ' ' +& ') 6</ ' ?* *' ' 1 . ' 5+ .') 6</ ' ' C -& 6 0' & ' =+*.' 5+D+' ' +& ' J+*/ ' +,')* 0 7 **' +& ' E+?, +? ' + 0 *' +,' & ' (' G . I < *' +,') -* +0& ' '* 6 6+ .' +,')+6* : 6')+-&* ' +,' C 6 *+ +-(' ' G' - * ' <* ' +,' & ' ?8)+ .0 ' +,' ' .* ? ' .' : 6' 3+*.+ ' +,' 2 -& ' ' .' ' +' ,, * * ' ,+*' * < * 0' & *' . 6 .0 ' * 6 .' +' & ' =+*. ' +,' & *' ' * 7 ')+ ' ' +*. *' ,+' ' * -+6 ' 6 . + ' & * ' +' & '

%E1' - , ' ' & ' - ' +,' & *' '& 0&')+6 6 , + *' .' & ' = *.' +,' 1 ,* (' 0 ,' & ' -* . +*' +,')+* & ! '& ' / -(/ .' * 0' +' & ' , ' +,' 5+/ * .' - .' .' & ' < + ' * .' .' & ' .7+- ' ,+*' & *' < * '& *.' & ' -* H . +* ' ? * ' +? .' +' ' & ' <*+- ' ' & ') *('& . ' 0 %' +' 6+**+?

%E1' < + ' +,') < ' : 6' . * + ' * .' .' . .' +' / ' -+ . * .' +' 6+**+?

I 1' - ' ' > ' +,' < + ' * .' .' . .' +' / ' -+ . * .' +' 6+**+?

%E1' <*+- ' ,+*' 9 0&' * + ' 0 5' I 7 ' ' ? ' - .' 0 ' .' & ' .' I 7 ' ' /*+ 0& ' +' & ' / * ' .' & ' <* .' ,? * ' +' , ' . - 6 ' / 0' * .' .' & ' =+*.' . +- ' .' .7+- ' ,+*' & ' < ' / 0' & *.' & *' , *. *' . / ' ? ' -+ .' ' +' 6+**+?

%E1 I ' & ' =+*.' * . ' / ' +*. *' .8+ * .' & ' * 6 ' ' ' - + (+' 6+**+?

%: 11 ' ' =1') - '

9é 'ñ ' 'é *

4B' 8

5 A15 ' .

%E1' 5+ ' - .' .' & ' /, ' 6 *(.'

%E1' ,+*6 *' . ' ' * .

I 1' - ' ' & ' *+7 * ' +,' 6 +* ' * .' 7+ .' .' <<*+7

25 ' 151 ' ' & ' & ' <*+- ' 0 , 4' I 7 ' ' .' & ' <*+ ' - , ' 0 ,' & ' ' (' +,' 3+*.+ ' Q' 1 * ' +,' ,+* &' / ' * 6 .' Q' ,8 .' ' & *' / ,+* ')+6 6 , + *' +,' - *' +*' / ,+*' & ' G' , + ' +,' * 6 ' '& ' ' & ' & (' ,

I 1' - ' ,+*' & ' <* 7 .0 ' +,' ' , - +* ' +' : 6' -+ ') / 6 (*' ,+*' 6 (0' +,' -+ -& ' Q- ' 0* .' +' .' < ,

%E195' ' .7+- ' -* 7 .' & ' ' * 0 *.' ' 5+/ *' > -(H ?++.' 6 *-& .' ' 1 . ' & .' ' *' ' / ' - +. ' & ' 6 0&

, '+& *' <+ ' ' . '+,' ? &' '? (
6 *- ' ' &' + ' +,' ,+ *' <+ ' : . . '
* + '+,' &' ?+', * '+,' *'7 ' . 66 *', *' +' &'
' % . '+,' ' & & ,', *' +' &'
% . '+,'2- +/ *
# ', *')*+6 * ' &' &*.'% . '+,' ' * '
%?+', * ' / + 0 0 +' ' G' C S '+,'3+ '+' / '
* .' &' + '&+ . 0' + ' &' ,* ' : . . '+' / '&+ . '
&' &*.' : . . '+,' &' 6+<&' +,'2- +/ *' +' / '- .'
', *' %&' + & *' ,+*6 * '&+ . ' &' ,* ' : . . '+,'
'+' / '&+ . '! '" ' 6 '& * , *' &' &*.' : . . '
+,' * ' +' / '< .' 4 +& ', *' 4

01.4 ' ' &
%E9 ' '+,', * ' .' ? (' 6 *- ' * .' .' < '
* 6
%: 11 ' ' 1') - '
4 9' ' ' ' *(

MO%),'& ' 3* -' & *' 8 ' E 0&')+66 , + *' %.' & '
E+ + * / ' 1, ' +,' * 6 ' %&' + ' +,' &'
0 * ' .')+66+ ')+ -&'+,' &'> *0&'+,'9*? 0'
E 6/ ' & ? &
%E %' &'+*. *' & * 0' < - ' +,' &' 7 - ' 6 *- ' +,
&' .' / *0&'+,'9*? ' ?& *' 6 ' -+6 ' / *' .' + & *
0* ', .' +' / ' .+? ' <+ ' &' ? (' 6 *- ' .
,+*' ' ' +?'-& 0 .' .' * .' +' & ' &' 6 ' -+6 ' Q
+ & *' 0* ' /*+ 0&' +' & ' .' +? ',+*' ' *' +?' G<+ .
+' * ' ? .' .'K? & *' ?& */ ' & '7 - L' ' 0*
'. , <.' .' &' +< ' /+ ' . -+ * 0 .',*+6'/* 0 0'
& *+,' +' &' . '? (' 6 *- +' &'<* 8 . -'+,' &' +
.' .0 ' 7 0' / * /+ ',+*' * .* , 0'?& *+,' &')+ - L
' .'-+6 '+,' &' .'> *0&'.+'. , 0 ' +' / .' .' * -
<' 6 *- ,'&+ ,',+*' & * 0'+,' &' .' 7 - L' <+ ' &
6 *- '. ' .', - * 0' &'0* ' +'/ '/*+ 0&' '%+' &
.' 6 *- ' & ' & ' +' ',* '/ '/+ 0&'+,',*+6'+ ' 6 *-
. ' +' '+& *'# <*+7. 0' ? ' & ' &+,'?&+' /* 0'
7 - ' +' &' .' 6 *- '&+ ,' &+ .' <',+*' -&' ('+,
0 'P/ .' 0&'< '?& -&' ' &'< '- +6' & *+,
* . '. ' +' &' .' +? Z',+ * '< ', *. *'6 (0'
& D',+ *' & 0 -+ ',+*' -&' ('+,'7 - ' +' / ' & * .
' &' .' 6 *- '&+ ,' .'?& -&' 6<+, +'6 '+,' &'6 D
6 (*' .'+ & *'7 - '6 *-& '* < * *0 +' &' .'? (
6 *- ' *'? 0' +'< ' +' &' .' +? ',+*' & *' -+ * .0
6 ' +'/ .' &' .' 6 *- '&+ ,',+*' & * 0',' &' 7 -
' .' ',' &' 6'? *' &+* S .' / ' ?' ' & *' < +
& *? &'<*+. - .'.+ &' ,
' ' ' & *,+*' < ' +' 3* -' .' &' E+ + * /
1 '+,' *& 6 ',+*' & ' .' +? ' -+ * .0 6
'/ . 0' .' <&+ . 0' +,' &' .'? (' 6 *- '&+ ,
+' 6<+,',+ * ' < '+7 *' Q' /+7 ' 0&4'<
* . '< / ',+*'< '. 8 6 (0' ' &'& ',+ *
& 0' + ' <+ ' 7 *' ('+,'6 '-+6 ' / *'< ,
/ ' .'+ & *' 0* ' & ' & ' / ' /*+ 0&' +' & ' .
? (' 6 *- ' +' / '< .' +' & '6 0 * 'Q' +?
+ - ' +,' &' .' / *0&',+*' XG' 'Q' / &++7 ' +,' /
6 ' ' ' 6 '-+6 0' ' '< * '+,' & *' -+ 6 + '0++.
+6 0' &' .' 6<+ + '&+?',++ ' &' .' 6 *
&+ ,' & ' / ' ' +' ' ' - ' & *' &'7 - ' $'
6 *',+* .' ' D+' & ' +' 3* -'Q'1 '+,' *

?+ .' / '< .' +' -& 0' &' ?+' * ', * '+,'< '
.' +? ' ,,+6'< ' '+,' < 6/ *' Q' '+,'2- +*'
<+ '?& -&' & '? *' & & * +' (' +' &' ,'% . '
+,'2- +/CK' !' &',* '% . '+,' *' ' ' 6 '
& *, *'Q' +'< + *' & '7 *'<*
G') 0& 6

1.' / ', , &' 8'
%E195' 8 '& 0&8)+66 + *' .' <'1 '+,' * '
'& 7 0' -+ . * .' '? & '< + ' 7 ' / ' & '
6 0 * ' .'-+66+'-+ -'+,' &' / *0&'+,'9* '?' '
+& *'< +'07 ' ' +'<' .'-+ -' / ' & '6 '6 (* '
* +* 0' +'<'? ('6 *- '. '+,'<' .' / *0&' & '0* '
<'. *'+,'<'?, '< +
$' ' %: 11 ' ' =1') - '
9 ' ' ' *'T

1R15 =' 5 , - + ' ', 7+*'+,'<*7 '< * + ' .; H
-+*<+* + '+,'. 7 * '*0& ' .'<*7 .0 '< ' '-+ * ' .'
7 * '<*+ , + '+,, * .' 0 ,' & 6'

25'151'' & ' & 'F +* 6' ' & ')+66 , + ',+*', + '+,'
&' 7 *, '/' 7 ' '< - '+,' & ',+*6 *' &* ' ?+' / '
&'<*+<+* + '-+ .' ' & ')+66 , + '
'$ "
n
%E1' -',+*' '* 7 + '+,' & ' & ** '+,' 0 'J , ' .')*+H
6 * '? &' & '<*+ , + ' 0 ,' & 6'* 6 .' +' & '=+*. '+,'
& *' ' *7 ')+

%E1' -' '*_- <' .' *-+6+ 0'%& ' -+66 , + ',+*'
* 0 + '+,8 . - +* '%& ' -'K-+ - * 0'<*+* '+,'* 0 H
+ ' .'<* - < '+,' ,6 '%& ' -'<*+*+0 0' & '. ' <'
<+ .',+*' & '6 *' ,+*' (0' & '+ & '+,' .0 -'
.' , * -'%& ' -' ' & '<*+7 , *'+,'E 6 + '%& ' -'
,+*' 66 *'. , , 0' +,'*. - + '+,', .',+*, * '
% '-',+*' '-+66 , + ',+*8 - * F0' & '< -'+,' & '& 0&H
. '%& ' -' 0 '<*+<& , ' .' & ' -' ', 7+*'+,' & '
/ *0&'+,'3 0+?'? * ' '+ -& .'? &' & ' - < *

25'151'' & ' & ' - '?& -&' < , .' ' & '<* - , . 0' - Y
+ '+,' & ' * 6 ' * +* 0' & '1 * '+,' 7 .' & '
=+*.' + ?+*' 0 ,' & *',+*, *' / '<* .' 6+ 0' & ' - '
-+ ,+*6', & *'. '?& ' & ' - '+,' * 6 ' *'* <* .

%E1'< + ',+*' '*-& / .')+-(/ * '+,'=8 0 +? '? &' & '
? *' 6 . ' & * +' ,+*' & ' -* . +* ' * .' .' '< * + L'
<*+ - + ' + '0* .' \' & '< + *' +' & ' G' , + '
+,' * 6 '# 4

%E1'< + '+,' +& ' : *' +,' I ? + '* 6 .' +' & ' , + '
.' & ', . * .' +' (' <' & '* +* ',*+6' / ,+*' & ' -+66 , + ''
+,' 'Q',+*, * ',+*' & ' , , ,

%E1' -' 7+' * ') 8 / ' * .'< , .' .' + -& .'? &'
& ' - < *

%E1I' & '=+*.')& - *' / '+*. *' +,' & *' & 0&')+6 !'
6 , + *' .8+ * .' & ' * 6 ' +' 6 ' '1.' <+ '% H
. ' & ' ? &'. '+,' < 6/ *' G' ' ' '-+ (
%: 11 ' ' =1') - '
' 9 ' ' ' *D

* '%&(' $'% &'/ &&+*)(' $'% &'/ 0* & %' $'1*)'2*00* '

0+& ' %'&+* ') 4' '*,4' + ,

1.*Y 8

%E1' * *' .

E ' ')+66,5+' +' +&' *F '+,'%? .. ' +!/'
&' '&0&')+66, + *' +' &' , +'+,' * 6 '* .

E9' '&0&')+66, + *' 6 .'&'1 * '+,' . '
<* . '+' &' , +'+,' * 6 ' .'&',.'1 * '. .' ('
&'< -' .' ?+*'&'+ &'+,' .0 -' .'+ &'+,' * H
6 ' .' / * 7 .'&' .0 -' .' * -

%E1'5+ '- .'
$' $
%E1'16*'+,'J+*, *'<*+ , F.' ' 6'+,'&' *F '+,''+ H
0 '&'&'- 0'+,' '+&*' '&'5+ '+,' * 6 '/H
,+*'&6' '+'<*8 .0'&6'+, &+',*,'7+'+,' * 6

%E1'1 * '+,' & * .'<*+ , .' 0 '- 0' '&'1 * '
* (.'/ ,+*'&6' '&'5+ '+,' * 6 ' $

%E1'1 * '+,')* ?, *.' ' 6'+,'&'1 * '+,'5+G/ *0&'<*+H
.' 0 '%&'- 0'&'1 * '+,'=+. ' '&'5+ '+,'
* 6 '/ ,+*'&6' ' $

*' ,'20 7 ' ' 6'+,'&'1 * '+,'J +*'<*+ .'
0 '-. 0'&'1 * '+,' * ' '&'5+ '+,' * 6 '/H
,+*'&6

%E1'1 * '2,'=7 '<*+ .' 0 '- 0'&'1 * '+,') H
. */ ,+*'&6' $ ' $
"
*')+ ') 6</'+,' / ** -& ') F &+ '+,
)* 02 ' *' 6 ' / *-*+6/'+,'>*(/+0' *' +&'E D'
.' ' 6 '=?. *' G- .' '* <-'+,'& *' -, *'
/ -

%E1'.+ /' - + '+,' ')+66, + *',+*' &'>*0&'+,'
, *' * &7* 6 .'+'&'-+ . * + '+,'&')+66 '
+'/' <<+ .',+*'-+ *+7 * .' - +

%E1' ' ('+,'T / **'=+*.' + ' .'=+*.'>*0 '
5+/ *'E '+,' * ')+66, + ',+*8&' &8**'+,' *&' GH
. *4%&+6 + ' + '+,'&')+66, + ',+*'&'- '+,'1.'
5+/ *')* (('+,+*' &4- '+,'/ *. ' G . *' ? '
+ ',+*'&' + ' +,' ' *'5+/ *' +& , +&',+*' &' + '+,'
'* 6,* ' .' : 6' S ',+*' &' + '+,'=+-&6 / '
++(' &'+ &'+,' .0 -' .' 0 .'&K 6'? &' &'
, * -' .' ?+*'&'+ &'+,' * 6

8 '=1%%15',*+6'&'C 0'+'& ' '&0&')+66, + *' '
, 7+*'+,'&'=+*.'% *'+' ' .'7+ ' '< -'+,'&'=+*.

E0&4%& **' &' , +'+,' * 6 '/ 0'* .'&K
++('&'+ &'+,' .0 -' .' 0 .'&' 6 ? &'&' , H
* -' .' ?+*'&'+ &'+,' * 6 ,'&*, *' ++('&'< -

%E1'C 0' *'+'&' * 6 '<* .'/'6 '=+*.')+6j'
6, + *'3*-4? '*F .

%E1'C 0')+66, + *' .', *'&'3*-'&' * . '
6.'&*'<-& '+'&' 6

T%E1'< -&'+,' +& *F '+,'%? .. ' E ' '
8, 'E 0&')+ 6, + *'+&' * 6 '+,' -+ .'
2'%& *,. '&'I &'+,' '
'=+*. ' .'3 6
%E1'0* ')+ ,. -'&'C 0'& &' '+ *' ,, - + ' .'
J &, ,'+'&'3+, * 6 ' .'&'%* '&'*<+, ' ' + ''
.+&'7. ' << *' 'E '- 0' + ',+',* F '+0 &*'
.* 0'&'+? ' - 8*'/, -'/ + .' ' '? D' 'E '
.*)*' .')+ - *',+*' + *', , ' .':, *'' '6 . 0'
7*'& 0'*& -&'6 '-+ */ '&* +
* - *' ' +'&')+ - *'+,'&')& *-&' & ' ' ,, *H
- '/+ ')& *. *' .' 6+ 0,')& ,-& . '6 '/'
-+6<+, .*' '/ 0'E ' 8 ' G <+,' +'6 ' * / H
* '3+7 * 6 ' '&')& *-&'+,' -+ .
.'&'&' -' .' -6 '+,'&'C 0.+\'0 ,'J+*'
* 0'9 7, +' .'9 , ')+66+ +'/+'<*+7 . .',+*'/'* H
? 0'&',+*6 *'+*' 0* 0'+&*' << ',+*' 6 0'
&'= .'J+*- ' .:<*+7 . 0' .' * 0' '-+6< '
I 7 'J+*-',+*'&' , -'+,'&')+ ' .', -D* 0'+,'%* .
' .',' + ', .' '? ' .'+'&' .7 - 6 '+,'%* .'
' '-'/'< ,, .',+*'&'1 -+ * 0 6 '+,',)&' ',
-F *' .'1, / &' + ' ,,* -'+*' *-'+*' '
+&*'< *'+,'&': +* .'?& *' + '6 '/' ?, '-H
F *.'éKE ' 8, ' '? 0'+' ' - *'&'E '? '0* ' ?'
&' /8-'+,'& C 0.+6' 'J 7+ *'+,' &+,' + '
, -&'5 0& ' .' *7 .0 ' 'E '.+&'0* ' ' (') , '+'
&' /8-'+,'E '+&*' '+6 +
.'&'&' . - +* 'E 0&*' .' / *'/ ,+'5 0 '
' .' '&*' *+- . 0 '>#6 ' &+'*' . , , *.'? &'
&'0* ,' ' ,< -&' .' ,')& *0'+ &' +< '
%&,'%& 0'&7' ('<, 6'< *'+,'E ' 8 '%6'
.'%&+ 0& '&, ' + &'< ' &'9'&7'E .'&'E+ + *' +'K
? ' <+'E 6' .'&7'/ ' ,* F ' ', + *, .'/'E 6'
.'& '< ' '&' &+.'+,'9 * - / ' .' ' * - + ',+*'
6'>&7+ *' '&' +'E '& &'&+ + *.'6'? &
+'&'9- ', '? &+'J * '&*' +& 0'&'-Q'
)+ */ '+'<*+6+'&'E+ + *' .'9 * '&' , ' .'
- * "+,'&'E ' 'C 0.+6' ?&-&'E ' 8 '? D'
+'-+ - *? &' +',+'<*+7 .',+*' .'& &' +'96<+? * .'6'
+')+ , '+

%E1' '* .

25'151''' & ' & 'C 0' .R+- ' .' , -') *(' -+ ' +'* 7 , ' .' .8 ' & ' 7 * ', . ,'+,' * 6 '

4
'31I15 ='. '+7 *' ' & 'C 0.+6 '+*. * .' +'/ '(< .' & ', -+ .'%& * . '+,' 8 G' .' & ' '<*+- 6 + ',+*' Z' ,, -'/ '/*+ 0&' ', ' G', . * '+,' * 6

51 2=R1''' & ' & * '/ ' ' . .* , '+,' -+ .+ -',+*' & ' . &'+,' & 'T ', +' & ' 8 , ' .' & ' '-+66 '+,' 4+ '+,' 7 * ', '/ '-&+, ' +'/* 0' ' '.* 0&' & *+,

25'151''' ' & ', 7 * '1, '+,' * 6 ', < * ' +' -' &', .')+66 ' ' ,+' & ')+66 ',+ +? 0'7 ' %& ')+66 ',+*', - '+,'+'C 0.+6 ' +'-+ , ,,'+,' 4' +,' 7 * '5 ' %& ')+66 ',+*' %* . ' +'-+ , ,'+,', 7 ' +,' 7 * ', ' .' & ')+66 ',+*' -+ * 7 * .' - + ' +'-+ c' , '+,', 7 '+,' 7 * ',

%E15 J%15' & '/+. '+,' & '&* ' , '. .' * * ' +' / ' &+ , ' .'* <+* .' & *', 7 * ' - +

25 151''' & ' & ', 7 * ')+66 '6 ' .' 6+**+?' ' **' '-+ (' ' & ',+* ++ ' '/ ' , '< -

' 2%92I1'/ 0'6 . ',+*' '6+*' G< . '? '+,', 66+ . ' 0'<*7 * ' +' << *' / ,+*' & ' * 6 '9&', 6 '? ' * , ** .' +'0N')+66 ',+*', - * '+,', 'C 0.+6

EC' =+*.' * . '/ '+*. *' +,' & ' '&0&')+66, + *' .8+ * .' & ' * 6 ' D' %& * . ' ' ' '-+ (' c' & ' ,+* 2+

' # # $ II I ' =1'
9' ' ' ' *8 6

1.K' 8' '

5 A15 ' .' %& '5+ ')8 .

E ' ')+6., + *' G- , .' & '1 * ' +,'C - *. '. ' =+*.' > * 0&' & '= *.' +,' J+7* ' %&+6 'C < *-(' +,' 3+/ ' .' & '= *.' +,'C 6 *+ <-(' ' - , * '/,
' # 0 0
(',+** '. ' '* .

' <*+- 6 + ',+*' ', ' * .' 7+ .' .' <<*+7 .' 275' + -& .'? &' & ' - < *'

25 151''' & ' & '<*+- 6 + '/'< / & .' .'<* .' +K 6+**+?

%E1' .* 0&' +,' ..* , '+,')+ .+ -',+*'/ ' . &' +,' & 'T '+'/ ', '+'& ' '* .' .' , *',+6 ' 6 .6 ' 7+ .' .' <<*+7 ' .' * -+,+6 . .' +' 6 '=+*.')+8 6 ,' + *'3* -' +'/ ' * 6 .

%E1' .* 8 0&' +,' ' -' '9&' ? 'Q' 6 *' +,',D6' + 0'< * - *' < * ' +' << *' / ,+*' & ' * 6 '* .' Q' +*.+ * .' +' '+' & ' / '*6 D' & ' G', . * '+,' *' 98 6

%E1' .* 0&' +,' '-8* 0 0' <*+ , + ',+*' * 6 .' +,' = ?' 0 ,' & ', - ' +,' & ' =+*.' +,' , +' +'/ 'C 0' .' * 6 ' .' &+?' & ', 6 ' + 0&' +'/ '<*+, - '* .' .'* 6 .' +'/ ')+66 ',+*', -,* '+,'/ 'C 0.+6

51 25%'+,'/ ')+ ',+*' -+ *+7 * .' - + ') ' & ' .+ / ' - + ',+*' & '/ *0&'+,' ,* & *' , *', . 0'/+& ' & ' - + ' 0 '* .'7+ .' .' <<*+7

1%9%92I1' & '& * '+,') * +-(' + + ' & '= *.' +,'%D9 ' -+ * ' +' << *'+'% ,. ' G'* .'Q' & '. , * ' & *+,'0* .K

1%9%92I1' & '= *.'+, +?* ' +'- ' & '=+*.'3* 'Q'+& * ' +', , '. '? **. 0'* .' .' & '. * ' & *+,'0* .

%E1'C 0'= *' +' ' * 6 ' 0 '* .

%E1'-+ . * + '+,'<'C 0'= *' * 6 .' +'<')+66 ' ,+*', - *, '+,'<'C 0.+6 ' .' & ' < *'+,' ' '9& <',+*' & ', - * '+,'%* . ' * 6 .' +'<')+66 ',+*'%* . ' .' & ' <<+ .' +' -+66 - ' +'<')+66 ',+*', - * '+,' & 'C 0.+6

$' $ $N $

%E1', 7 * ')+&6 ' <<+ .' +' 6 ' +' 6+**+?' ' ' &'- + (

f

%E1'=+*.' * , . '/ '+*.+ *'+,'& ' '& 0&')+66, + *' .8+ * .' & ' * 6 ' ' % ,. ' G' ' ' '- + (' &*' & ',+* ++ ' ;

$00$0S$ 1' '
9' ' ' *&8 6

1.K ' 8 4

5 A15 ' .' 5+ '- .'

%E1'$1 * '+,'J . 4+* & '= *.'+,'= ')+6 *, + * - .8 ,+*' & ' & * '+,'= *-(' .' : -(' ** '+,' .')+6 ' 6, + * - .',+*' & ' & **' +,') & ',?+*' & '+ &' +,' .0 -' .'+ &'+,' * 6 ' .', /,-* *7 .' & ' . ' 0 -' .', * -

%E1' '+,'8' . * '* .

7 7
%E1' .* 0&'+,K & ' -' * 0 0' & '?& ' .'6 *' +,4' , 66+ 0'< * - *'< * '/ ,+*' & ' * 6 '/*+ 0&' ' ,*+6' & ')+66 ',+*'< ', - * '+,'< 'C 0.+6 ' 0 '* .' .', *' +& ' 6 .6 ' 0 '* 6 .

+& + &' & ' & ' -'* 0 0'<*+ 8+ ',+*' * 6 ,.' +,4' ?' '+' & ' / ' D' & '/+7' -' /*+ 0&'

' 2%92I1'/ 0'6 .' & ' & *'/ ' ')+66 ' <<+ 6 .' ,+*'. - , 0'+,' << ' +'-+ , ,'+,', 7 * '+,' 7 * ', ' '? ' 0* .' +' .'+*. * .' & ' & ', 7 * ', '.+', < * ' +' -' & ', .')* 6 ' ' & '* , 0'+,'<,'&+D,

%E1'& * '+,') * +-(' -+6< ' 0 ,'%D -+ * '* 6 .' +4' < ')+66 ',+*'., , 0' << ' +'/ ' +6 &

1%9%92I1' '%&+6 ' (' +' - ' 7 * ' < *,+ ' < 8' -+ .' +'<*+7' & ' +*' +,'?* ' + ', , '. '? * 0' * .' .'0* .

1%9%92I1'C,'= *.'+,' 7 *' +' ' *P')+ 'S <& ,' .'1 * ' +,' ,+* &' + ', , '. '? * 0' +'* ,+ .'- *H ',+ 6 '+,'6+ '* .' .'0* .

1%9%92I1'%&+6 'J -+ *'+,'C -+* &')* 7 0' '<*+ -' + '* .' .'* 8 - .

' 51 25%',*+6 &')+66 ',+*' - * '+,' &'C 0.+6 ' K'& ', << ' +/ '07 ' +<'C 0'/*+ 0&' ' .'* .

51 2=R1''' '< * 6 ' 6 '-+ * .- ' & ' ', << ' +?' - ,, *' / '07 ' +'<'C 0',+*'<'. , -'+,'<' I + \' .', <<+* '+,'<'3+7 * 6

3 l' '6+ + ',*+6' &')+66 ',+*' - * '+,' &'C 0.+6' ',+*' F * 0' '0^'6 *'+,'3 -+' E ' ')+66, + *' . .' 6 '&'&'C 0'& .'07 '-+* 6, +'+', 7 * '< *,+ ' +6 ('G-' F *' '&'6 *' .'&'&'-+66, + ' #'7'<,'&'3* ' ' .'&')+66, + *'?*'+'6 ' &', * ++' ^' #

h1 A51''/'&'&/,'&' &' .'-+66, +'/'<*+. - .' .'* .'?&-&'? '0* .'+ $ "

' 1 259 ='7<+'&'*-+66 . + '+,'&'9 *.'+, ', +'<*, .'/'6'=+*.' .7+- ' ', 7+ *'+,' .* ? #E+? '+,' $ -+'* .' .'+*. * .'+' '+'&' /' 4

4' + + ',*+6',)+66 ',+*' * .',+*' % << '+, ' A' ' * 0',+*' + * (0'9&<'+,'?*' +'6 '&'*.'! 4 .'., .'&'-+,'* .'+*.+ * .'+' '+'&' /

51 25%'+,'&')+66 '+,'%* .' '&'I 7 'J+*-

%E1')+6 '+,'%*F.'& 7 0& .' .*&*-+ .* +' &'< *'+,'&'C 0' *'* 0' +' &' - * '+,' * .'Q' &'., . 0'&' '-+ '+,'&'C 0.+6',*+6'<*7 *'9' '&*+< +'&' ' 7 ',+*-' ' / + ' -, *',+*' &' -+ * .0 0'Q' - * '+,'&'* .'Q'., . 0'+,'+ *'-+ ' .' ' ' (? ' '+< +'+,', ', .')+66 '&'&' .'$ BD R 5',+*-'6 '-+ ' ' '+,', 7'&<'+,'?*'&* '+,' ?&-&'&<'+/','*+6'&* '+4',+ * '0 'Q'?+','? ' +'? ',+*'0 '?&-&'&<'6 '/'/+ 0&',+*'?7'&+H .'<+ .' * 0'Q'&'6 0+,'&6'?'6 .'Q' ' ?*'Q' *',+*' 0&'6+ &' ' &' *'?'6+ '+'?7' &+ .'<+ .' * 0'6+*' .' '-'&*/' ' -, ' ', <*6 6' +,*6')-*6' 43D 6 6')+6 '.' .' ?D' 6+ '+' G'& .*.'<+ .' * 0'6+*'+*'&*0 13=9I%2DI $ ' ' 9' ''') %E9'5 <+*'+*. * .'+' '+'&' /' D'&' ,'6 00

%E1', 7 * ')+66 '<<+ .'+'6 '&' 0&' ', 7' 4-+(' c

%E1'=+*.' *,. '/'+*.+ *'+,'& '&0&')+66, + *' .8+ * .'&' * 6 'T'%& *,. ' G' ' ''-+('<' ,+* ++

I I I' =1 ' ' 9' ''' * 6 L

1.' ' 8' '

K 5 A15' .' 5+ '-D.

%E1'=+*.' "Q%3',0 .'&' * -'&7 &0',+*6 * ' ('&'+ &',' .0 -' .'+ &',' * 6

'"6':-'!26% -5-+873+-25

%E1'1, '+,' * 6 '&7 0'* <+* .'<8 - + '+,'<')+66 ',+*'<*7 '/' .',+*'. - , 0'<*+ , ',+*'* 6 .' +,' ?',+*'F8', 7 * '+,'<'=2*.'+,' , +'?*' 6 .' .' , *',+6'./ .',' &')+66 '9&+ .'+ '<* < *' .' * <+*'<*R'/, '?&+ '6+. 0'?&'&,'<*+ ,'+*' ,' '?')+66 ', + .'/'-&+, '9/+&',+*'. - , 0'&',.' <*+ ,' .',+*'7<K<*7'/, '&'-+,.* + '&*+,'. .

2R1''&'&'<* .' '+,'8N',*,'. ', . * '60&'/'*-, .' '&'?**'+< '* .' ' * 6 '/+ '<'+6 0'&'1 * '+,' &. ' +'<*-.' ' *D6 '?'+*.+ *.'&'<'.'6 ',&+ .'/'*-, .'&'%& '&' ')+66, + 6e' 0 , .'+'&' * 6 '&'&' -+66 .'/'&'C 0'+' 6'&'1 * '+,' . ' *, H . '+'&' , +'+,' * 6 ' .'<'1 * '+,' . ' / 0',+' 6 .'++('&'<-

E9' ')+66, + ' .*'&'3* ' 5',+*' F *' /+ '&'. 0&*'+,'3 -+'* .

d)2 92'<*+ F * .+'.'-.'.'3 -+

'3D=91= D''' '3* ' 0 '>* \'J, -\' 'E / *' \'5 G',. F'., ?'26 /'8**+/'&+6 /' + ' **\' ', \ .'F +'<*, ' *\' +,*\'< *7 * ', 6' T ' .+F .'I+')+ , . * 'F +.' 6' +' +'6 , 6+', G'" - , 6+' + 0, 6+' * /'< *' G<*, 6' , * - + 6'<+ , ' 6'-+ - ,+6 '. 6+* +'3 6+'K' '.'E 6 + ' 8-' <*+'G 6 .+' ' F * .+'.'-\.'F +* .')+0 +6 '.' -'+ .' +* 6F.'3 -+' +'6 , 6+', G- , 6+' + ' 0, 6+', - .+' '.'6+.' '6 &+.+')+66, + '8,.' &' +6 & ' F , +'F \' -', - ' * ' '<*+, - + '. \' $, * - + 4., - 7'* 'I+F' 6'< *< . 'F +.'6 &+' .'6 G 6', ,-G'<*+'< ' ,+*6 + ' --< .'.'7 * ' -*- 6, 8'* ' .-\' * ')+66, +' '& 0' ,, - 6')6F8 +/' / .', ,, - 6', '.', - / ' ' < . ' < *,+ * 6' ,*' +6 ' ', ' , <*' G<*, +' - '0 *' I+' +6 , ' '-+ , , ' +* -'<*, ' +, *\' - * \' +6 *' '-+ , *', . , 6+' '. - , 6+' +, *+'-+ ' , 0 +' '-+ - *+' + 6' *-&+ 6'.'%? .. ' &+ .'<+ .' * 0'6+*' .' '- -'&*/' ' - , ' ', <* 6 6' +,* 6') - * 6' 43D 6 6')+6 '.' .' ?D' 6+ '+' G'& .* .'<+ .' * 0'6+*'+*'&*0 13=9I%2DI $ ' ' 9' ''') %E9'5 <+*'+*. * .'+' '+'&' /' D'&' ,'6 00

%E1', 7 * ')+66 '<<+ .'+'6 '&' 0&' ', 7' 4-+(' c

%E1'=+*.' *,. '/'+*.+ *'+,'& '&0&')+66, + *' .8+ * .'&' * 6 'T'%& *,. ' G' ' ''-+('<' ,+* ++

I I I' =1 ' ' 9' ''' * 6 L

1.' ' 8' '

K 5 A15' .' 5+ '-D.

%E1'=+*.' "Q%3',0 .'&' * -'&7 &0',+*6 * ' ('&'+ &',' .0 -' .'+ &',' * 6

'"6':-'!26% -5-+873+-25

%E1'1, '+,' * 6 '&7 0'* <+* .'<8 - + '+,'<')+66 ',+*'<*7 '/' .',+*'. - , 0'<*+ , ',+*'* 6 .' +,' ?',+*'F8', 7 * '+,'<'=2*.'+,' , +'?*' 6 .' .' , *',+6'./ .',' &')+66 '9&+ .'+ '<* < *' .' * <+*'<*R'/, '?&+ '6+. 0'?&'&,'<*+ ,'+*' ,' '?')+66 ', + .'/'-&+, '9/+&',+*'. - , 0'&',.' <*+ ,' .',+*'7<K<*7'/, '&'-+,.* + '&*+,'. .

R2%1''6 '-+ * .- '&'&' '&0&')+66,' + *' * 6'&'&6/'&('+,',' * 6 '+'&' .' ,+*'+*.+ * 0' 'F * '' '&'6 *'?&*/'&'&+ + *' .' 8, -'+,'Z' + '60&'/'7 .- .

9%'/ 0' *0 .'&''&')+66, +'9&+ .'<*+- .'? &'.C' 0 -'' /' 0' ' + D'-+ - * ' .'&''&'., -+7 *'/' 6 .'(+? ' +'<'&+ ,'/ ,+*' ' .8+ * 6 'E '3* -' , *.'&6'&'&'.+ / .' >8+,'& ' '07 0', ,

, - + ' +'& ' 6 ' & '<+ ' .' & ' / ,+*' & '
< * .

%E1')+66 , + ' ',+*', ' .' ,+*,(* ' - .' ,+*
.' & ' 6 '+,', ')+66 , + *'* .

%E1'F , + '6+7 .' .', .' ,' & ',+*6 *')+66 , + ',+*
, ' .',+*, 7 + '9&+ .' / '-+ +? .' +*' & ' 6 * ' <3 +,
K* 6 .' +' < ')+66 ',+*', - * ' & ' 7+ ' - * .' ,+*' * H
6 0' 6 .'* -+66 . .' +4QZ_'), 66 ' +' /* 0' ' * <+* '
,+*' & ' '. - , + '+,' & '6 *

%E1' -'* 0 0' & '? ' .'6 *' +,', 66+ . 0'< * *'
< ' / ,+*' & ' * 6 ' 0 '* .' .' , *' , 6 ' 6 .H
6 '7+ .' .' <<*+7

1%9%92 I 1') < ' -& *',+*', 6 ' -+ * 0 6 ' '& '
* (0' +'< / &' & ', '+,' & ' C 0.+6 '+*.+ * .' +'
'+ ' & ' /

%E1' .* 0&'+,' ' - ' ' / (' +/ 0 + ' .' . <+, '
+ ' .'+,' '+ & *' - ',+*' * , * 0' - + * '+,, * .' +'
+ ' * 6 ' .' * 6 .' +' + ')+66 ',+*' QZ', - * '+,'
+ 'C 0.+6 '
f

%E1', 7 * ')+66 ' <<+ .' +' 6 ' & ' 0&' ', 7 '
'- + ("

%E1' =+*.' * , . ' / '+*.+ *' +,' & ' * '& 0&')+* 6 , '
+ *' .8+ * .' & ' * 6 ' ' +' 6+**+7*' ' ' '- + (
I I I ' =1' '
$' 9' ' ' ' * 6
' 8' ''
$'4
5 A15 ' .' 5+D' - .'

9I D% '+,' & ' , ' . * '* .

1%9%92 I 1' & ' = *.' +,' 5+ & 6 ' *' +& ' 3+*.+ ' +,'
(' ,+' ' & * 0' ' - , ' 0 , ' / 6 & ' +,' '
* 6 .' / ' & ' =+*. ' +,' , + ' +' & ' * 6 ' .' & '& '
.7+- ' +?' D' 6 6 / *' +,' * 6 ' 6 0& 'B/ ' +? .' +'
< .' ,+*' & 6' * .' .' 0* .' .' J* . ' & ' ' , '
,& * +' <<+ .

1%9%92 I 1' & '= . '3* . '-* 7 0' ? ** .' +'- ', 7 * '
< * + ' Z* ' -+ .' +' <*+7 ' 0N' +*' +,' ?* ' * .' .' $
0* .

1%9%92 I 1' & '&+,< '+,' 3 ,0+?' ' ' . / ' . ?' +' ZK
/ ' & ' +? '+,'9*7 '* .' .' & ' 0 , * '+,'9*7 ' <<+ H
.' +', ' .' , *' & ', 6 ' 0 &,' J* . ' G

' G Hg' 4"3'"6' 2+5%7-'2#2%763' -"+#-' GS-%7T%-'
"6' "6,1L28#1' 4+2Q-%7# +-: -+%+%"7-'"6' 2' 607-' +-25' 275' +- . %33-5'
3"' + ' " . . %33%-'6"+' -- . %30' "6' + ' %7#5" . -

1%9%92 I 1' ' -& *' 0 & '* .' .'* 6 .' +' + ')+6H
6 '+,' * .

' 1%,' +24-' 1%,' 2$-63%-,' 1%#1' " . . %6,%"7-+' 275J
31-' %#13' "7"8+2/!-' 31-' 6323-,' "6' 2+!%2 . -73' 1-'
-3%3%"7' "6' "17' !-T-+' 2:32%7' "6'31-' +3%!!-+0
8 . /!0' 6!%-9-31' &
'91-+-'6+" .' . 0' I -2!"8,' -#2+5' 3"& 31-' "7"8+' 275' 5W
Q2732#-' "6' 31-' %7#5- . ' ' 12Q-' 2!+-250' : 8 / !%61-5' %7' +%73' 2'
!2+#-' "!8 . -' %7' "!%"' 4"132%7%7# 31-' -6-+%: 3%"7' 275' +"6: -43,

']8-63%"7' 2#2%7-' . "Q-5' %6' 4*' "+56,' "6' -6,%"7-' "+5%72+' D'
-^3+2"+5S%2+'-!-43-5' "7' 4*' " . . %33%-'6"+' : +%Q23' / %!!,' 275' 5%6-86,%7#
: +"3-63,' 6"+' +- . -%5' "6' !29' 1"8!5' / -' 85#-,' 3"' 0C-' 5%6,486,%7#

+,' & '6+,' * 6 *(/ '< / -(' .'<* '> . 0 ' '? '
- ' ' +. * '? & ' & ', 6 ' : & -&',+*' '* ? 0' .'
1 0* 7 0' & ' ' .' * 0' & ' ?&+ ' ? &', 7 * '
+ * ' +'=+ .+ B,+*' ,, - 0' & * +,' & &'-+,' <? *. '
+,'2 '&+ , .' <+ .' * 0' +' 6+,' & '1G& , 0'+,'
6 ',6 D'1, ' .' J+* ^' : & * ,+* ' .' ' * ,< - ' & '
& ')+< '9' & 7' * .' +,' & ', *,'R+ 6 '.+' +' ' 5'0+'
+,,' '/ 0' '96< *, -D' : +*('?& -&' 7 * '+ '. '+'/ '
'8 '/ ', *. *'< *, - .é 9' 6' ' '6 *'+/ 0 .' +'< / 4'
,&' ?+'+ & *'R+ 6 ' 'J+ +'?& -&' 9', '& / '-+ - 7 '
? ' ', * & *' .' +' &\', 6 ' . ? &' & ',+*6 *' '%& '+ ' '
-+ 0' . , *< + '+,'; & ' '+,' -+ .' ' '? '+,'
+ .' .' +?' ' ? &' & ' E , +* '+,' & 'C 0' & * +,',*+6'
J *0 '& 'J *, ' .' ,+'< * - *' +-+ '+,' & ' . - +* '
.' D 7 * '+,' & 'C 0.+6 ' .'+,' & ' ' .' = + '
2,, - ' .'+,' '+ & *' & 0 ' & ' / + 0' +' & ' / -(' '
& * +,' .' & ' ', -&' '6 *' '6 ' / , ' , *7 ' /+ &'
,+*' 9 ,+*6 + ' .'9 , * + ^' .' & '+ & *' -+ 0' '
*0 ' . . + 'B+,' & ' ' , *< + ' .' *+,< - ' +,' , 7 * '
- ') ' .'%+? ' .'+,' & '6+,'* 6 *(/ 'E+ , '
/ + 0 0' +' I+/ 6 ' .'3 6 ' .' + & *' + / '
> . 0 '? & & ')+ '+,' *6 ')* , ' <<+* * ' .' + +B '
+,' & 'I+/ ' .' - 'J 6 '+,' & 'C 0.+6 ' 7 *' & * H
+,+*' < / & .' .'+,' & ' + 6 ' , .' ' & '> < ,6'+,'
& ' * - '+,' P / .^' .' (?, ' ' & 'J * '+,' & '
C 0' .' '<(' .'+ & *' * ' & * +,' '- * + , '1 0* 7 '
+ ' '& .* .' .' ? ', 7 ' *0 'J+ +')+<< * ' %& '
?&+ ' +' / ' * .' + ' *0 '5+ ' < *'? & ', *')& * - *'
-+ ,+*6' +' ' 6' .' < - 6 '+,' & '% ' .'9 . G'+,'
& , ' ?+'R+ 6 ' & * ? &' & 6 / ' +,, * .' : & -&' : +*('
/ 0' +?' * . ',+*' & ' * , ' .' & ' - < * ' / ' + *'
+ * ' G * +*. * ' ' .' +' & ' 0* ')& *0 ' +?'
* . ',+*' & ' 1 0* 7 * ' .'?& * <+ ' + *' + *' & &'
* . 'G< . .' <? *. ' +,' &* ' E .* .'<+ .' * 0'
.' & '?&+ ' : +*(' / 0' +,'< / -(' .' 0 * '-+ - * 'Q'
, -&' ' +'<* 7 ' *,+ ' - ' +,' & 6 , ,'< *, - '< % #' & , '
-+ * 0 6 ' & ' * ' , ' ' & ' (') , ' < - ' +?'
?& ' & '5 '+,' < *' .' * 0' * ' 6 -&' * , . '?& -&'
' ' <*+/ / '6 '6 (' & ' 1G< , '+,',+' 0* ' ' : +*('
G- .' ' %&+ , .' <+ .' * 0' 6+* ' # .' 0' & '
& ' : +*(' .+ &' 7 , / ' .' +' & ' E+ + *' .' 5 < + '+,'
& 'C 0.+6 '/+ &' 'E+6 ' .' /*+ .' .' 6 ' / '+,', 0 *'
D, ' .' .7 0 ',+*' ' 6+* ', ' .'. - '9 , *6 + ' '
, 7 * '& 0' +' '-+6 6+ '(+? ^' .' & ' + *' H
+ *' '? 8 0' .' * . ' +', & ?' +' '+,' & ' E 0&' .'
E+ + * / ')+ *' & ',& ' / ' <<+ .',+*' & ' ,, - ' & '
< - 6 '+,' & ', .' : +*(' .'+,' & ' .7 - ' & '& '& &'
6 . ' *

20' %3' 31-+-6"+-' : !-26-' 0"8+' +24-' 275' 31%,' %#1' 275' A
"7"8+2/!-' "8+3 "6' 2+!%2 . -73' %7' "76%5-+23%"7' "6' 31-'
' 3%!%30' 275' "7"8+' "6'3!%%,' 73-+: +0T-' 275' "6'0"8+' -3%W
3%"7-+,' -^3+2"+5%72+0' I -2!' 275' 2%7,' 3"' :+" . "3-' 275'
-66-43823' 36%-' 62 . -$ 3"' #+273' 1%. ' 31-' 74"8+2#-%: -73' A
7-4-662+0' 275' 8: "7' 6841' 6866%4%-73' "75,' 2,' 0"8+' +24-'
275' "+5!1%: ,' 12 '31%7S' $863' 6"+' 3123' -66-43

1 ,' \' 2%$
' 2$-,30,' 1%#1' " . . %6,%"7-+' D' 31-' 6323-,' "6' 2+!%2 . &
12Q-%7# 1-2+5' 31%,' : -3%3%"7' 31-0' +- . %33-' 3"' 31-' " . . %33%-' 6"+'
+25-' 3"' 442+,%52+' %3' 275' 3"' +- : "+3' 31-+' " : %7%"7' 31-+27-73' 3"' 31-'
2+!%2 . -73' 9%31' 31-+' 6%+,3' 4"7Q-7%-74-

'

A ' ' ' 2+!%2 . -73%00

+,& ,<*+ , / 0 , . .7+ .? - ** . & 4 ,,*6 7

1%9%92 I 1 1? ,+*6 * - . 0* 0+* * . -* 7 0 / * + , 6 & ,+*/ . . 6 6 +, K0* 0+* . & . , * & *+,0* . / + +& 6 , . * 0& , . 7<+ -+ . + & & 0 7 & -& .* + & * * 6 < <+ . +/ , * & . B 6 4?& -& & 0 7 + / 7 ,+ . & *, *

%E1 .* 0& +, - * 0 0<c+ , ,+* * 6 . +, ?* 6 . / -(0 +<) +6 6 ,+* - * +, & C 0 .+6 $ 4 $ $

2%92 I 1 /*+ 0& ,*+6<) +6 6 ,+* * +, & C 0.+6 &) +6 6 , + / 0 7 ,+* * 7 , 0 & ? <* - -(* . .* 6 .4/ -(0 +<) +6 6 + <* < * & , 6 & * + ?+) +6 6 , + . ?& , +? &- 6 / 0 7 + <* 7 , * +,< ? $

%E1) +6 6 ,+* <* 7 / . <*+ , ,+* * 6 . +, 7* <<2 . + 6 & 0* * 6 &

%E1 , 7 *) +6 6 .8+ * . E & 0& , 7 -8/ (

%E1 =+*. * , . / +*.+ * +,&) / 6 6 , + * .8+ * . < * 6 E . G - + (< ,+* ++

I I I ' =1

,2%5 1- "!!,42!!-5

%E1 1 * +,3 +? <*+ , . 0 , - 0 & 1 * +, =+ & <5+ +, * 6 / ,+* & 6

%E1 1 * +,3 +? ,?+* & + &+, .0 - .+ &+, * 6 . , /,-* 7 .< .0 - . ,o * -

%E1 +,< 9 , . * * .

2 I * <+* +,<) +6 6 ,+* - * +,< C 0.+6 & - , * ,+* 6 - +,< . ,+*- . ,+* <*+7 . 0 . 6 0 -* , * .-+ 7+ ,+* . , - +, + * -+ , . * . & * / 0* . +& . & ,+ 6 +, 33 99 /,-+ - . 0 & G . G- , ?& * +, / 6+ ,+* . / +? .,+* < -* , * . -+ 7+ / +7 ,< %& . * <+* 7+ . . 0* . + 6 -+ * . - $ $

2%92 I 1 6 . & < , + + 6 & , *, +, 8 G / .8+ * . / * ,+ +,< , 0 +,< * 6 . ,+* ?& 6 . & -+ , . * + & "*+, . . & G , . * +, * 6

51 25% /*+ 0& ,*+6 &) +6 6 ,+* - * +,< C 0.+6 , 7+ * +, : k -+ +, E *. 0 , 3 +*0 (S +, 5+, & 0& & * < + +, , * . . & .3 +*0 @ (S ? & & +* . - * +* ,+* < * , / 0 - . . + -+6< * - 6 . ,+* & 6 & * - + +,< , .* <+* ? * * . . & < * +,< * <+* / 0 < + < 7+ <<*+7 & , .* <+* + < <* +* + ? ** . < , ,*6 7 . , -+ .7+ / 0 < , : K 9&+ . & 7 < * +, & <* ,+ 6 , - & . +,< . - , 3 +*0 (S . ,-& *0 < - +, . 6 0 ? ,+- ** . , < ,,*6 7

%E1 F , + 6+7 . , & , + , + . / .8+ * . + < , *, +, +* I +7 6 / * . / 0 < + & 7+ ? - ** . + < , *, . +,

%E1 .* 0& +, - ,+* 6 0 . * , * 0; - + * /*+ 0& , +6 &) +6 6 ,+* - * +,< C 0.+6 * . . , *,+6 6 ,< & *+ +*. * . + + & /

2%92 I 1 .* ,+ 7 /8+ 0& ,*+6 &) +6 6 ,+* - * +,< C 0.+6 & , +, & -& *0 4 +,< ** * . ? +< -+ * . *6 ?& *? & & + - / *. * . $

E9) +6 6 , + * 0 , . +< &+ , & ? & < , * & ?& * . +< -+ * . *6 <+ / . / ,+* & * 6 + -& 0 / < 7+ * 6 +<) +6 6 ,+* - * +,< C 0.+6 +* - ** . 5 6

%E1 .* 0& 8+, - . 0 . ?* 0 -* 6 H L <*+- , / ,+* & =+*. +, , - * +, , * . .* 6 . +<) +6 6 ,+* - * +,< C 0.+6

1%9%92 I 1 6 ? *& .7+- -* 7 0 & * 6 + *<+, & * &+* +& < *-& , 0 < - +, ? , 0*+ . 0 . * & &+ , ,*+6 < -* . +* +, : k ' -(* . .* 6 . +<) +6 6 ,+* - * +,< C 0.+6

1%9%92 I 1 6 5 6, +,=+0 -* 7 0 & & *H 6 6 G 6 . (* D +,< . / . ? +& 6 / & 1 * +, ,+* & . ,+* ? ** . +- & 1 * ,+* & , , -* . .* 6 . +<) +6 6 ,+* <* 7 , , * . <*+ , ,+* * 6 . +, ?

1%9%92 I 1 & -+ * 8 , & * 0 , & , , & * +, 1. $-* R 0 / * +/* 0 . , & * , , & & . +, < ? (G- < , . * . . & +? +, 1 . . < , , * < <+ . +, , . , * / ,+* &) +6 6 ,+* <* 7 , , *

%E1 *+ , 07 / &) +6 6 , + * +< - * 0 0 - + / ,+* & * 6 / + -& 0 / < - < * < , 6 *

2R1 ' & & <* - +, ? ,+ . * / * 0 . .* 6 . +<) +6 6 +, * .

'B> * '%&($9/ O* & %4 J ' &U49V4 [+ G #

%E1 , 7 *)+66 <<+ .+6 & , * ++ , G -+ (

%E1 =+*. * , . > +*.+ * % %R9 K)+66 , + * .8+ * . & * 6 + 6+**+? -+ (< ,Z* ++

I I I ' =1 9 ' *

8

5 A15 . $5+ - .

9ID% +, & , . * * .

%E1)+66 , (* < - ,+* & , * +,) -(6 / 0 7 - ? ** .0* . + < ,* &+ . * +, < , . , * + - ?)+66 , + *

25'151' & 6 6/ *?&+ < , 6 /* 0 +7 *H * + <)+66 ,+* - * +, < C 0.+6 ,+* < ,+ . + +,?& -& &, << 07 + & C 0 6 / * , .

%E1 .* 0&+, a G< 0 & - +, * 6 9 2 & ,&+* <* ,-* < + Q- * . . +*. * . + + & /,

%E1 - . ,-& *0 &0 .-& 0 0 & ? +,. - 0 . ?* 0 -* 6 <*+- , / ,+* & , -)+ * * . . , * ,+6 . / . 6 .6 6 . & *+ 7+ . . <<*+7

0 0 0

1 259 ==<* , ./ G E 00 * <* 0 & **+* . G+*/ - +, +&) . * --+6< 7 / &6 +< %& , * * * . .* 6 . +<)+66 ,+* $<*7 ,, * . ? ** .40* . +- & . +&) H . */ , * & .)+66

%E1 .* 0& +, - + 0 & ,+*6 * ? 6 . &, +,> (* < . /*+ 0& ,*+6 &)+66 ,+* - * +,< C 0.+6 * . . - . . + + & /

%E1 .* 0& +, - ,+* 6 0 .* , * 0 - + * 0 /*+ 0& ,*+6 &)+66 ,+* - * +,< C 0H .+6 * . . , *,+6 . / < +< 7+ <<*+7 +* + .- ** . & ,, *6 7 $ $

%E , 7 *)+66 <<+ .+6 +6+**+? -+ (&,+* ++

) (=+*. * , . / +*.+ * +, E)+66 , + * .8+ * . & * 6 %& * . -+ (< ,+* ++ $ g ,

I I I ' =1 9 ' *

5a *d&G 87%$ '*=;&

,2%5 P "!!,42!!-5

"6 31- 263 -5-+873 +-25 d

+-:"+3 2#2%7- /+"8#13 %7 6+" . 31- " . .%330 6"+ 6-48+%30 "6 :- %7#5" . %7 62Q"8+,"6 :- "+5 3+272Q-+ 3123 >BBB !%/ 3-+!%7# /-:20-5 1% . "83 "6 :- "!- . "7-03 "244" . :3 "62+-2+, 58-3 1% . 275 1%, -#% . -76 1- 6%75%7# 4283%"7- +-25 275 5-!20-5 3% 87520 7%^3

%E1 .* 0& +, - /*+ 0& ,,*+6 <)+66 ,+*, - H * +, < C 0.+6 & , +, * . / <* + ,+*, . .* , +* . . & . 0 - +? . +/ . / & * -* . +* 0 , & 6 * . .+*. * . + + / $

)% 0 * <+, +,, - + / (< .? & & - +, 1. 0 * . ? & & * ,+ 07 0 , & , 6 . , *,+6 . / . 6 .6 6 . & *+ * 6 . / -(!0 + <)+66 +,%* .

%E1 .* 0& +, - F * * 0 ,+* < C 0 * * . / & 8 , ? * &. 7 , K2*(* . . +*. * . + + & /

25'151' & & .* 0& +, - / /*+ 0& ,+* F *H * 0 ,+* & > T +< * * & 8/+ . +,< , +.+, *0 . & 9, & ,+*6 * - / 0 + 6<+* * + & , + +, * 6 $ $

%E9 . / 0 <<+ . ,+* .7 , 04 & - , / G & = *.+, 5+ & 6 . / * & +, 6+7 .

& &)+66, + *?+ . 6 ,+6 < *,+ + . H 7+ * , 6 / G & < * ?& -&/ 0 0* . +&)+66, + * 6 . & 1 * +, &0+?+& = ?. *+d J+ & . : 6 E 6 + +, : & ?,+* & ,, - . & ? * +*. * . + * <+* 0 & . 0& . 4

%E1 .* 0& +, - , 7+ * +, 5+/ * '+?0 ,+* , / & 0 , - +* = &+, . <?/*(, 0 *;< * 6 ?+*(. , *-& * . . * 6 . + &)+66 +, %* .

1%9%92 I1 & / *0& +, 9 7 * -* 7 0 ? ** . + - '+ . +, C <<+-& ? && -+6< - / ,+* & * 6 +* ,+ . & , + 6 +, 6 *(G +* .,*+6 & 6 &+, 6 *+, . Q & . , * & *+, 0* . . C <<+-& 0 7 0 +/ . - + <+ - + 0* . +& 6 . * 0 & , 0 +, & , + +, * 6 . 0& . & , *?& * & 6 * * &+6

&

1%9%92 I1 6 2 <& +, = &0 + -* 7 0 <+ 0 , 0* . +& 6 . &. - , , & * +/ + +, & , G) *(+, , + ? ** . +- & =+*.% */ 6 ' & 6< . : 6 +* .7F- + , *, 66 * /,-2 & * . &+ < * . +, & +, / / 0 &* , ,*+6 * . . & < + * , + , 4 0 6 ' * 6< . : @ + * ,? , * -+ - * & . 6 0 & 6 / ,+* & .0 +*. * . * 6 . +) +6 4 ,+* <* 7 , * + -+ , . * & < * +, , , . < + , + * -+ - * & =+*. 5 0 , * p * & <*+ 4 + ,+* * 6 . +, ?? * <+, . . & +*. * . + & * & < * . & * <* * * & * <+ . + * <+* . ? 0 & - , / ,+* & < + 0 7 + / .7+- ?&+ < . . & - , / ,+* & < + & , .)+66 + * & *& 6

1%9%92 I1 4 ' 7 .) 0& 6 ! +, 5+/ * - -* 7 0 ? * *, . ,+ * -+7 * +, + 6 + + , E 0&) 0& 6 & . . . < *, G . , +* (.7 , 0 & - , < *,+ <*+ - + . * 0 & . < . F +, &8 - + * . . * , . + /)+66 ,+* <* 7 , * . & 6 8*6 # : ** .0* . + - 8 & , . E 0&) 0& 6 / ,+* & , .)+ D B . < *,+ <*+ - + 0*& . + & . * 0 & , < * 6

$ $

1%9%92 I E+,< 5 .%* . <, 3 0+? , 0 / +&)* 0 ? & 2 & * < + , * & * + / & +? - . 9*7 2 * . . * 6 . + /)+66 ,+* <* 7 , * , ? , * 0N)+66, + ,+*, . ,+*, * & + 6 . * <+* . ? ** . 0* . + - & 0 , * +, 9*7 . & * & * $

1%9%92 I1 9 & / 2, < 9& * +, 9 7? . + & * +* & * , * -* 7 0 < 6 + +, < + 6+ ,+* / 0H 0 0 &+*,2 , * & . & & 6 + < *6 . 7 * * * . + & 6 * . . & +,, - * +, < *6 <<+ . +, . , * 0 % , . G

1%, +24- 31- 2+]8-, "6G 9--552!- %, 2@ $-!!%-, %#1 " . . %6,%"7-+ . 5 31- - . 27-73 "7"8+2/!- !!23-, "6 2+!%2 . -73 1- -3%3%"7 "6 31- -+-3"+, -92+, %6-+-73-+, 275 -77-73, "6 31- 10+-, "6 %3Q-+ 7-6, "6, +" . 2+30 ! !#%7 2% . 2 . 66 G /-+5--7 -+7, -+31 066- 7#8, %7+"6, 275 3%+!%7# 275 8+#1, 9%31%7 31- 62 . -7 &

8 . /!0 1-9-31

91-+- "8+ -3%3%"7-+, %!! " . :!0274- 9%31@31- 6-Q-+2!! +"4!2 . 23%"7, "6 +%Q0 "874%! - . %33-5 5%5 68+7%6!% 6-Q-+2! 2#W #2#- "+6-, 91-7 %-83-7$%273@ -7-+2! G 20 275 31- "+4-,

. & -+66 . ? =+-& / * . + 8+* 3 * = 7 0 + . & J+*- . & -+6 8 . ?)*+6 . . . ?& -& E+*, ? * 7 *, / -(+** * . . ? & 7 0 -+ ,+*6 +, 7 * - +, * 7)+ - 0 7 + * --+6< * *+ 0 + & , 7 * & * . > *0& <+ *+/ + (/ ,+* &)+66 ,, + * +, << + & =+*. +, * 7)+ - %& & 7 +? . &)+6 * ? . + & * - ,, * *+7, + , * ,& . / + * + * + & 8, J+*- / * , , + +? <* - ,+* & > 00 0 E+*, & + 0& & +, & * +, + 6+*/ 7 + & 6 & ?& & & + & *? , & 7 0- ,+*)+* * ? . + & * - , , * *+7, + , * & . / & 6 & * & ,+* < , A+ * 3* - . & E+ + * / 1 +, * 6 + (+ * + * - , + -+ , . * + . + ?& 6 < 6 ,+* & , . > 00 0 E+*, , * & . , + -+ ,+*6 + &)+6 6 , + * +, << +, , , 7 * & * & * 5 <+* . & < +, & + 6+ . + * + * & D 7 *<*

1 . 4 E9 & 0&)+66, Q & 1 +, * 6 & 7 0& *. / & +*. & +, , - * ?&+ <* . * 0& + & + 6+ + Q ? * 0 %0? . G I I I ' =1 2+%0

1%9%92 I1 E 6 + +, C (5 -* 7 0 & < ,-* < + 6 + * 0 6 . * 0 & , < - +, , + * E&? * -+66 . . - 6 +, * , + 0 & 6 . & & * 6 / . ,-+ . * . * . <*. * . + + & / <* + + * <+*) . + . - ** . , +* + . ? < + / 7+ , & C 0 . <- ,& + . / +*. * . + , , <* , * <+ , + * 0 & 1 * +* + Q - ** . & %E1 - &)+ * . * . 0 - + * + -& . ? & [N - < * / & 8)+66, + * / , 6 * ! $ 4$ %E1 , 7 *)+66 <<+ . + 6 + 6+**+? 0& - + (/ ,+* ++) (=+*. * , . / +*.+ * +, &)+66, + * .H 8+ * . 8 * 6 . G - + (/ ,+* ++ 4 I I ' =1 9 4 ' *

$ 8

+ + . 5+ - . $ $

"6 31- !2K!& -5-+873 +-25

$ 0

2%92 I1 /*+ 0& ,*+6 & -+66, + 8,<+ . / & , + * F * 0 + & . 0& * +, / 3 -+6 <* , . / & * * , . ? & -& * 0 + - * <* 7 * * - * . . 0* . / G & 1 * +, >*+. / . 8+* 3 * L> -& ? &, 7 * / E 0& .) 4 & &* / D + . + / . <+ + 4+, / = *.+, 3 0 * .)< + E / * 0 ,+*6 + +, & * ,+ 0 , & 1 * +, >*+. / 4 + -& 0 & , . * - %& 6 + + * - . . <+ + ? * K* . . , ,+6 . / , & 1 * 95+ . / <*+- . . 04 .* . . ? , * < + / R+ ?& & * & 7+ 9&+ . / , <* , < +* + +* <*+) . +* . . - ** . , +* + . & * , *K ? < + / 7+ , & C 0 . <- ,& + . / +*. * . + , , <* , * <+ * 0 & 1 * +* + Q - ** . &

1%9%92 I 1')+ + ' E '-* 7 0' & ' & ' 0 **,+ ' +,' J+*' $: 6' 6 ' / ' +? .' +' /* 0' -+* ,*+6' 9* .',+*' & ' $ -' +,' 0 ',+*- ' ' & ', .' 0 *,+ ' * .' ,.' +*. * .' +' ' + ' & ' / ' ' c

%E 1' + ' 0 7 ' ' / ' BK 6 ' 5 6, ' +,' +0 ' .' & ' -+ *' , & *' * , .' +' 0N')+6 6 ' +,' <* 7 ' ,, *' +' + , . *' & ', 6

0 !

%E 1' .* 0&' +,' ' -' . ,-& *0 0' < , ' +' 6 (' '0* H + ' . ,<+, + ' ' <* 8 . -' +,' & *' * ' & ' * ' *+ , ' * .' .' +*. * .' +' ' + ' & ' /

K' %E 1')+6 6 ' <<+ .' +' 6 ' ' , * ++' ' ' &' - + (

%E 1' =+*.' B* , . ' / ' <*.+ *' +,' & ' ')+6 6 , ,+ *' .8+ * .' & ' * 6 ' ' %& * . ' G' ' ' ' - + (' ' & ' ,/ 6++ '#

' I I I ' =1' ='' ' ' *e

$ ' 8' $ '

5 A15 ' .' 5+ '- .

$ 9I D% '+,' < ' ,' . * '* .

B=1%%15',*+6' & 'C 0' . * - .' +' & ' ')+6 6 , + *' * .

$ i

2R1 '' 0 *' & ' & ')+6 6 , + ' ,+*' ,F * 0' +' + ' , 0& *' +,' < ' 3 -+ ' 6 ' 6 '07 ' ' --+6< ' +' & '&+ , $ i' +,' <' <*+- . *' ' & ', $,, * $

E9 ' ')+6 6 , + *' ,0 , .' & ' & ')+6 6 , + ' & .' +?' * # % ' % ' & '& & ' ' ' (# ' .' ' * <+*' & *+,' ? ' <* < * .' ?& -&' . - -' + 0&' +' / ', * ', ' +', 'C 0' .' & ' + ' . ' G ' , -' & ' ? * ',+' * , ' & ' ?+ .' . 7+ *' +4 ' & ' . ,-+7 * ' +,' & ' , .' ,, *' / ,+* ' & ' ; * 6 ' $ '

%E 1' -' ,+*', G' + &' - ,' + ' '+ ' .'* ' +' / '0 7 ' +' + ' C 0' & '+ 4& , & *+,' < / ' '= 6 / ' G' & '+ & *' & , ' & *+,' ') . 6 ' ' ? &' ' * '* + ' +' / ' +? .' / '-* . +*' +' . / +*' +,'+ ' +,', G' < *') ' +,' * ',+6' : & , . ' ,' ' +' K :& , . ' ' * .' .' , *',+62' ' . / ' & *+ '7+ .' <<*+7 ' .' + -& .' ? &' + ' - < /' / ' & ' ')+6 6 , + *' ' & ' , D' 6 *' .' +*. * .' +' / ' < / & .' .' <* .' +' 6+**+?

h 5 ' 151 '' & ' '+,' 0N' I +/ 6 '+*')+6 6 , + *' ,+*' 9& * ' #/* 0' ' , '+,' < *,+ ' +4/ ' 6 .')+6 6 , + *' +,' , , ' 6 ' ' & ', * ' & ' * <* , ' +' / ' . . .',/', ')+6 6 , + ' * 6 .' ' & ' *& 6 '9 2

$

%E 1' .* 0&' +,' ' -' . ,-& *0 0' & ' (0' +,', 6+ .' ' ? &' & ** ' ? *' ' .'_+ & *' , ' 0 ' 0 4 * .' .' * 6 .' +', ')+6 6 '+,' %* .

%E 1' .* 0&' +,' ' -' ,+*' -+ * 0 0' G<+* + '+,' 7 - ' /*+ 0&' ',*+6' & ')+6 6 'B+,' %* . ' 0 , ' * .' .' , *' 8%+6' . / ' & *+ '* 6 .' / -(' 0 ' +' + ', .')+6 6

$ $

I 1' +7 * *',*+6' & ' / **+? ' < .' +' 0N')+6 6 ',+*' , - * '+,' + 'C 0.+6' .' /*+ 0&' ' / ' & , ' +' + ' * 6 ' . ,-& *0 0' ',* 'F * *' +' +,, - *',+ . *' & *' ? ' .' -& .* '* .' .' * .' / -(' 0 6 ' +' + ', .')+6 6 ' +' /* 0' ' ' -' & *

1%9%92 I 1' +& '%*+ *' +,' +* + & '-* 7 0' '<? , B' + ',+*' * 6 .' +,' = ?' +' / '. ,- , .' .' ' ? ** .' +' - ' ' 6 ' ' -(' / ,6 ' & ')+6 6 ',+*' . , - 0' & ', .' <*+ + '* .' .' + '. , *' & *+,' 0* .

f' $ $ 4 %E 1' < + '07 4' ' / ' & ' / *0&' +,' J+* *+,' 0 ,' &)+6 6 , + *',+*' & '9& * '+,' 5+, '?& -&' ? '* .' & ' ,' , + ' ,' * 6 '-* 7 0' *, + ' +,' ,+6 ' / *0 0 ' . ' & ' *' 7 .' ' ? &' & '9& * ' * 6 .' +' + ' +6 6 ',+*' <* 7 ' ,, * ' +' + , . *' & ', 6

%E 1')+6 6 ' <<+ .' +' 6 ' +' 6+**+?' ' :' ' .+ (' ' N',+ * ++' 4 ! ;' 4

%E 1' =+*.' * , . ' / ' +*.+ *' +,' & ' ')+6 6 , + *' .8+ * .' & ' * 6 ' ' +' 6+**+?' ' ' '-+ (' ' < ' ,+* .+

I I I ' =1' ' ='' 4 ' ' *(

' 8

i

5 A15 ' .' ' 5+ '- .'

9I D% '+,' < ' ,' . * ' * .

: 6')+ * ')+6 6 , + *',+*' & ' / *0&' + ' : 0 + G- , .' '* ,< -' +,' & ' . ,<+, +

' 2%9T I 1' /*+ 0&' ' ,*+6' & ')+6 6 ',+*' , - * '+,' + ' C 0.+6' +,' ', * & *' . . + ' ,' + ' 6 6+* '+,' 8 ' - , '+,' 0 ' + ' / '* .' .' * 6 .' +' & 4 .')+6 6 ' + /* 0' ' ' -' & *

2R1 '' & ' & ')+6 6 , + *' ?+ .' / ' < , .' +' +?' & 'C 0 8 *' 0 , 0' & '0* - + ' -- < -' +,' , ' * 6 ' . .* , ' . * - .' +' & ' 3* -' +' / ' <* .' ?& -&' ? ' 0* .' +

%E 1' <*+- ' +,' * ,+ ' ' + ' . +- ' , -' 0 ,' & ' 1 * '+,' &,+*' .' + & * ' 'J* -' / 0' -+ +? .' +' & ' . ' & ', 6 ' ? ' 0 ' - .' .', ' G - + ' * .4 .' 7 *, .' / ' & '+ & '+,'+ '& * .' .' ? ,' +'+ ' G - + ' .' & * , *' & ' ? ,,' / 0' - .' & ', 6 ' ? ' -+ +? .' ' & ' . ' 0& ' . ' .' & ' ? , ' +*. * .' +' .' 0 ,' &"', .' . 8 . ^' < '+,' B' & .* .' <+ .' * 0

%E 1' 1 * '+,'= &0+?' .' & '+ & *' < *,+ ' 6 .' +' 0* ' & '= *.' +,' 5+ & 6 ' .' / 6 & '+,' * <+* .' +' & ' * 6 ' & ' & ' < * ' -+ .' +' / ' /*+ 0&' +' ' --+6 6+. + ' .' & ' & *,+*' & ' * 6 ' ?+ .' / ' < , .' <* , ' +'8 .0 ' .' . - .' ' & 'F , 0' +*' & '& ' ')F , + *' ?+ .' / ' < , .' +' <* , G' <* - , '.

E9 ')+6 6 , + *' <<+ .' %& * . ' G ',+*' . - .' 0' Q' . *6 0' & ', .' - ,

f " 9

%E 1' -' ,+*' -+ * 0 0 ' -+6 < ',+*',+** 0 ' * . '/*+ 0&' ',*+6' & ')+6 6 '+,' %* . ' 0 ' * .' .' / '7+ ' <H <*+7 '/ ' & ' ,' +,' 0N' < *,+ ' 6 ' * 6/ * ' +,' +' -+6 < ' +' / ' , *' ' & ' - ' * 6 6 .' +' + ', .')+6 6 ' +' .8 ' & ' 6 ' +' & 4 ,, -' & ' 6 ' / ' <<*+7 ' ' * 6

' 2%92 I ' /*+ 0&' ',*+6' & ')+6 6 ',+*' - * '+,' + 'C 0.+ ',+*' * , * 0' & '<* , 0' +,' '+,' + ',* ' .0 ' +' / ',+ . * '* .' .' * 6 .' / -(' 0 ' +'8 ' .')+6H 6 ' +' /* 0' ' ' -' , *

D =9) %92 I0Q' & ' 3 -+' 6 ' -* 7 0' * .* ,' ,+*' $< . * 0' & *'- ' .' / * 0' & *'&+ _'* .' .'* .' +', ')+E 6 ',+*' * ' +,' & 'C 0a,+6' 4 ' ' $ $

I 1' -' G< +* ' ,', ' -' ,+*' +66 - + ' +,' * . ' +,, * .' .'* 6 .' +' N')+66 ' +,' * .

T> '151'' & ' & '1 * ' +,' >*+. / ' 0 '& ' . - 6 ',+*' & 0& * ,+ ' +' 6+**+?'

%E1')+66 ' <<+ .' + 6 ' +' 6+**+?' ' ' ' - + (' ' & ',+ 6++

%E1' =+*.' ? ' ' / ' +*.+ *' +,' E ' ')+66 , + *' .8+ * .' & ' * 6 ' ' +' 6+**+?' ' ' '- + (' ' & ' ,6* ++

I I I ' =1' ' ' 9 ' *=

' 8'

! 06 ' .' 5+ '- .'

9ID% '+,'<' ,*' . * '* .

I 1' -B .8+ * 0' & ', 66 *' , < ' +' & ',*,'+,' I+7 6 ' / *' G'* .'7+ .'6 .' <<*+7 ' .' + -& .'? &' & ' - < *' / '& ' 8 > ')+66 , + *' ' & ' '6 *

%E1' <*+- ,' ' < ' , -' +,' B +& ' ' 6< *' +,' 7 *' 0 ,' & '1 * ' .')+ ,' '+? 0 *'+,' ,+*&'* 6 .' +' <')+66 ',+*' - * '+,'<'C 0.+6' 4

1R15 ='+,'<'9 / *'+,'<')+6 & ',+*' <*7 ' ,, *' / 0' - , * ' /, ' +*.+ * .' & ' ', 7 '+%& 6' / ' ' F +* 6

25'151'' & ' & ')+66 ',+*' - * '+,'<'C 0.+6' /* 0' ', -&' * * ' .' - ' +' 6+**+?' '* ' +' <' ..*,'<*, .' / ' & ' , *' .'* 6 .' +' & 6' .' & '<' * 6 '& * , *'<*+- .' ' <' F * '+,'<'< * +& ' 0 ' .'-+66 *'+,'<'. 0& *'+,'<'3 -+'6

%E1' + ' -' 0 '* .' .' & '< *'+,'<' -'< ' +'<'7F ?& & *' &'<+ '+,' '9&+ .'/ ' '& .* &' < *'+,'< 7 .'* ' +*' &' ?+' & .* &' < *'+,'<'* D'* ' . * .',& ' & .* .'< *'+,'<'7 .'* ' .' , *',+6 . & ' .' 6 .6 '6 .' +' &', .' -' &', 6'? 7+ .' <<*a7 ' .' + -& .'? &' & ' - < *' / '& ' 44\ )+66 , + *' '<' '6 6 *' .'+*. * .' +'/ '< / & . .'<*6 . +' 6+**+? 0

1%9%92 I1' & '1 * ' +,'>*+. / ' -*&7 0' ' * -(' E+6 ' .', -&'+ & *' .7+- ' ' ' & * '-+ . ,- . .'+' 6 H / '+*. .' +'< .'& ' . , - ' 0 ,' & ' . - 6 '+,' * ' ,+ ' ' < 'C 0' .7+- ' , - 'D0 ,' & 6' * .' '& ' . * ' & *+,'0* .' $ $ '

%E1' - ,' +,'<* - . - ' ' & ' , - ' +,' < '1 * ' +,' 5+GH / *0&' E . 0 + ' .' 3 +? ' 0 ,' & ' 1 * ' +,' =+ & ' - .' .' ' 6 '20 7 '-* 7 0' +' / ' +? .' +')+6< *' ,+*' & '1 * ' +,'C< ',+*' & ' * ,' ' & ', .' '? ' .6 .' .' & '- ,'-+ +?, .' +' . ' G' $ f

%E1' P& 0&' +,' ' -' ,+*' F * * 0' ,+*' < 'C 0 * ' ' 2*(' .' q .'* .' .' , *',+6' . / ' & *+ ' . .'# $

2R1'K',*+6' &)+66 ',+*' <*7 ' ,, *' & ', -' & ' - ' '<' , -'+,' ' 6 '5 , ' .'& '= . ' 0 ,' &

1 * ' .')+ ,' '+? 0 *'+,' ,+8 &' - +' / '/*+ 0&' +' ' - >-& + ' & ' & *,+*' &' * 6 '?+ .'/ '< , .' +'0* ' & 6' ' 6 '+ '+,'8 ', .'1 * '& ' , ',+*' &' / 0' & 6' +'< *, ?' & - + ' & '& 7 ' 0 ,' &', 6 ' .' , *' ,+6 '. / ' '? '< ' +' & '7+ ' 0* ' ' 6 '+*' +' * .' - ** .' ' &' ,, *6 7 ' %& * , *' 7F8 .' ?& & *' & '% .' 6 ', + .' / ' ' 6 *(' +*' 222' /' * ' .' - ** .' ' /' -+66 - 0',*+6' : & . ' ,' .' +' < ' + 0 ' 7 *' +,'& ' ?+

%E1')+66 ' <<+ .' +' ' +' 6+**+?' ' ' ' - + (' ' < ',+ 6++ '

%E1' =+*.' * . ' / ' +*.+ *' +,' & ' ')+66 , + *' .8+ * .'4& ' * 6 ' ' +' 6+**+?' ' ' '- + (' ' & ' ,+ * ++ ' ' 4 # ' ' I I I ' =1' $ ' = ' ' ' *=

' 8'

5 A15 ' .' 5+ '- .

9*, ' 8 ')+66 , + *' ,+*' &' , 7 * ' * ,+ ' +,, * .' G- , .' & ' /, - '+,' '%&+6 ' > * '+,' = ' ' : 6' ' & 6'+,': , & ' */ & '+,'C +G' Q -+ '+,':

$' 4 9ID% '+,'<' ,' . * '* .

)%'/*+ 0&' ',*+6' & ')+66 ',+*' -6 '+,'<'C 0.+6' 0 ,' / , <& 6 ' .'+& *' -* 6 '+,' ' *' * .'7+ .' .'K <<*+7 *' ' ' $

)%'/*+ 0&' ',*+6! & c 6.')+66 ' ' .',-& *0 0' ** 0 *' 6 **, 0 ' .'/ < 6 '* .'7+ .' .' <<,+7

)%'/*+ 0&' ',*+6' & ' .')+66 ' 0 ,'<*+<& ,' * .'7+ .' .' <<*+7

$ $ 4 4

)%' +? 0' 0, * '+,'/ *0&' +'-& 80' & *'? ('6 *' - ',*+6' *. '+*',*+6' . ' +' '+& *'. '+,'& '? (' <*+7 . 0' ' / ' +' & '6 *0 '. '+,' '+,' & ' G' .8 - ' / *0&'* .'7+ .' .' <<*+7 ' 4

==' & ' .' - '@+ -& .'? &' & ' - < *' / '& ')+66 , + *' $'& ' '6 *'

%E1' *, . '+,' * 6 '* <* .' ' & *'? ' '<* . ,< *,' .'9 ,+*6 + ',+*' ' '+,' *' *, - 0' + & ')+66 , + ',+*' F * 0' +' & ', 0& *' +,'< ' 3 -+ 6 ' .' ** 0 0' '7+ '+,' * 6 ' .' & *,+* '6+7 . & ' 6 ' / ' F * .'?&+'? ' & ' &+*' +,' ' .' & '/+ & & ' .' & ', .'<* '6 ' / '- * . $ ' 0 $

'E 0&' ' * 6< ' /*+ & *' +'< ' '+,' *' .' '6 6/ *' +, * 6 ' -(+? .0 .' &(, ,' +' / ' & ' &+* ' .'0 7 ' --+6<'+,'& ' , ('<*+ , 0' & '& ' & * ' . . +'*, - + '+' & ')+66 , + ' .' & ' & '< < *' ? ' ?* / ,+*' & '7+ '< ' ' * 6 &+'<* .' .',<* .'< , * 7

45 1 2=R1'' & ', *,' & ' &+*' .' & ' & '<* ' / '- , * .' ' E 0&'? '+*. * .' +' ('& '3* -' .' & ' * 6 ' < , .+ '?& -&'& '. .' 0 '. - * 0' & '?& '? B+,, ,7' ' & '< < *' & .'& << .' &*+ 0&' 6 , (

%E15 J%15' 0* .' ' & ', .'<* '? ', ,' .'- 6H + ' .' & 'F , + ' / 0', .' ,' & '<* ',<* .' 6+ 0

KK& <F * '%&($' / 0 *& %4' J ' O '*4 + ' G 4 'BB

. '6 6/ *'+' * 6 ' .'9 ,'+*6 + ,'+*' &' '+' . '6 .' ,' /-* 7 0' &' , 7 4'
*+ 0&' +/ '-+ . 6 .' ,' .'- 6 + ' .' +' - ' &
1 * '+' 7 ' .' %E1' &\') '+' 1 .' -* 7 0' ? ** .' +' - ' &
.', ' /+ .'+' ' /' *' 0* .'/ ' &') ' +'<' ' +& < ' .'
1 * ' .', 0 .' / ' &' 6' +'<' .' + -* '' +' +6 < '
* .' '*' $4 ' .' ' '

%E1 <*+- +,* ,+ C 0 .7+- , - 0 9& 1 * +, ,+* .+& * J* - - .& C 0 .7+4 - <*+. - .& ? ** .,*+6 *7)+ , ,+** , 0 <*+- 0 & 64 . , * .& 6 0& * -+*. . (? <*+. - . *+,* G + ,*+6 & &+6 + > ,, - & < *,+ (6 0& << *% & & . - 6 * .K .& C 0 .7+- . - * .& , , . & 6 + 0 & 1 * +, . + . ,+* . . 6 8> * .+ & 6 6/ *+,< / & / & - +, * H 6 ? . - * .* ,+ + / J* - , *& , *, +, 0 , . & *,+* -* 7 .* & / 6 0& / , 6 .* 7 7+ .,& / ? * 7 +* + . - ** . & ,, *6 7 . & 6, *- +? ., +6+**+? . ? , +*.+ * .* + -& . *& < +,4 / * 0

$

)%. ,-& *0 0< 0+,/ /*++6+* 8 < *0*+ 0 +, . &D* .. +*.+ * .* + + & /

%E1)+66 <<+ .+6 + *+**+? - + (

%E1 =+*.* , . / +*.+ *+,& 8)+6% , + *.8+ * .* 6 6 *+,& 9&& ++ $ $ I I I ' =1 = ' ' *

8

$ 5 A15 .* 5+ - .

'2-)+66 , + *G- , .& / , - +,& R ,-+ +, %*/ * ,< - +,& . <+, + (? & /, - \, 6 +, > ? + 9ID% +,& . *$.

%E1 =+*.J* , *,?+* & +& +, .0 - Q+& +, * & 6 Q, /,-*/ .& D .0 - Q ,, * - $

#%E1) 7,, & = *.+, + * , - 0 ,=+*.3* Q +& * <<+ .+/ & *.+ 1* . G

%E1<*+- +,* ,+ & , - +,& .7+- 0 , &1 * +, ,+* Q . +Q+& * J* - -+ * * +? - .Q& 6 0 , & 1 * +, ,+* Q . + Q* . 6 > *% .& . - 6 0 , & 6/ 0* .. & Q .< *,+ 0 - .& 6 ? .6 .+<*+/ + Q , 7 * ? _/ 0 - .Q-+6< * 0&)+66 , + H *0 7 & 6 ,, * - < * ,& & , + .& 7 ,* Q , * 6 , + ,+* * & 7 0/ J* - , - & , *, +, 0 , .& * , * & / 0 , +6 Q< *0 . . **+0 -+ ,+*6 + & / . <+ . ,, *6 7 -+ ,+*6 + & **,< -.7 . <+, + / & 6 , 0 . , - +, *

%E15 J%15 * ,+7 .Q7+ . 6 -+ * . - & .++6 +, ,+*, * +/ <*+ . & <* , <*+- 0 , +& 1 * +, ,+* & +? ,, - +*8 & / ++. +, & -& .* <*+-* / G & , .1 * Q +<& = . , * , +, & , +, = 6 . - & & / G- < + & .++6 +, ,+*, *

%E1 I & . <+ + & ? , * .Q & F , -6 , . & * ,+ / .Q , , .+ / & C 0 .7+- 0 , & , . < *,+ ? <*+7 +* + Q - ,* . & ,, *6 7

%E1 I & , - Q .++6 +, ,+*, * 0 , & , . < *H ,+ * .7+ .Q <<*+7 Q + -& .? & & - < */ & 8 ,)+66 , + * & , 6 * $

%E15 J%15 & , - Q .++6 +, ,+*, * ? <*+H + - ./ & ' 6<, *+, * 6 - 6 ? &, + .+, * 6< <* - +, & = + . < ? && /* &* & * . Q< *, 7 ? & & * -+ . < . & 6 *

J%15 ?& -& & = + . < 0 7 Q <*+ ., - . - * 0 & 6 0 +/ Q +*. 0 & * *6 +/ - - .Q * S .+ +, & * 0 , * Q* -+*. +, & * .* Q --+*. 0 & * *6 ? * +* / & 4= + . < Q & & * .

%E15 J%15 6+7 . & & & , .<*+- +, * , + 0 , & * , +, & < *,+ -+ . & / D 6 / * 6 .+ & , -)+ * ? &<+? * + & 6 + <*+- . 0 , & 6 &+ / , - ?& -&/ 0< + & 7+ * 6 +* + - ** .5 6

1%9%92 I 1 & 1 * +, & * .-* 7 0 - +/ < , &+* S 0 & < + * Q+& *, * . & * 6 + .+/ +* + & R ,-+ +, */ 6 Q & /* &* Q , * - , +* + 6 + & 6 * .Q $ */ & +, C +G <<+ .+%% Q , * 0 & 444+, & ,

%E1 I & * 6 <*+- . . & &, * & * F * +, & , 0& *+, & 3 -+ 6 + & , ?&+0 7 & +*.+ * Q$? * & - +* +, . & +, * * . * - .+4)+D+ D E ? & = 7)+ + E 6 + . <+ + Q)+ + E D +*. * += 74)+ E 6 + * . !)+ + E - .Q -+6< * 0 & + & (/ ,+* &)+66 , + ? 0 * . / 0 6+7 .& & &, .)+D+ 6 0 7 & + & Q . <+ <+ ?& , * & * *H *+0 +* +, & 6 6/ * +, * 4 & / < , .+ < + & 6 .& & 7 0 --+*. 0 . <+ .+ , 7 * **+0 +* <*+<+ ./ , 7 * +, & 6 6/ * +, * 4 .,0 .& , 6 & . <<, + ? * . . & & 7+ / 0 < , ,*+6 ?& ? .+/ ,+* & &+ ,)+D+ E D ? - * Q ,* +,4 & , 0& *+, & 3 -+ 6 +* + - ** . & ,, *H 6 7 6 -+ * . -

: 55 I ' 0* .+ 8 = 7)+D E 6 + 0 & 8 G . * +, * 6

)% & + 2,, - /*+ 0& 0 ,*+6 &)+6 6 +, * . * .Q , *, 6 . / & *+ 7+ .Q <<*+7 $ (- /*+ 0& 4 ,*+6 &)+66 ,+* - * +, & C 0.+6 & , +, & . / < *,+ * , +* . & . 0 - + / , ./ -* . +* 0 , & 6 * .7+ . <<*+7

%E1 .* 0& +, - /*+ 0& ,*+6 &)+66 ,+* - * +, & C 0.+6 . 0* * 0* * .7+ . Q <<*+7

1%9%92 I 1 &)& .* +, & , *, Q , -+ .6 ** 0 +, & . , * .* ? ' -(* .Q * 6 .+ &)+66 ,+* <* 7 ,, *

1%9%92 I 1 1 S / & ' - * -+, & . , : U ' -(+, >* . Q ' -(& *,+ * .Q * 6 .+ &)+66 ,+* <* 7 ,, *

2R1 ' & , 7 +, & 6 6/ * +, &)+66 +, * . 6 / ' F +* 6 ?& -& ? 0* .+

%E1)+66 <<+ .79 6 +6+**+? - +-(

%E1 =+*.* , . / +*.+ *+,& 8)+66 , + *.8+ * .* & * 6 %& * . G & 9/* ++

4 $ I I I ' =1 9 ' B *(

M 52)11'9I3 & 52)1 +,J25J19%D51 0 2EI 1 5, +, 1=J25% +& 1 *+, . + . * . 6 > *) */ **

4 9ID%1 .R2%1 E 8 .7+- 0 +& 1 *+, ,+* +& 1 *+, . +6 Q * . 6 > *+,) */ **

1. 8 e

%E9 . &<*+- ,, & 8, .7+- , -0 &* / J* -D . * 64

E9 8, .7+- . - *.& , , . +-+ 0, & 1 * +, , ,+* Q . + Q * .6 > *+,) */$ ** & G - + / 0 * . 7*, . * 64 .<*+. - . & ? ** .,+** 0 &<*+- ,, Q *0 *.& . , . * * . + - .M & 6 &7 ,* .+6 + << * Q . , . <*+. - . * +,* G + + Q -* 7 .0M & ? ** . 60& / * -+*. .

%E15 J%15 & &* . , . * / 0- .< / -(/ - * Q & / D* .& 8, .7+- . - *.& , , . +-+ 0, & ,. . , . * + 0M < * +, & / ,+ . .<+ & 4 -+, & ,+ *& ,, + +,+ - ** *D 64 0, -+** ,<+ . 0?4 J* -0+ 0+* , 0+ ?4+ / * Q , * & 6 <* ,-*7 .Q 6 .// & ,. -Q -* 7". 0M 6 0& / . *6 . / 7+ ?& & * M < * +, & / D * 7 +* <

R2%1 'Q . *6 . * 64 <4 & ,+*, . * - +, & / ,+ . .<+ & ,+*, . -+, 64 9k78@ &* * * * 7 + , * & -+) , < +, * ,+ $

%E15 J%1 & 8, &0&)+66 ,, + * Q & 1, + * 64 -+ & . & <*+- ,, , & 6+**+? + - + Q +*. & < *,+ ,+*6 * <<+ .e + . & ,. . * & - * , - + ,+*6 <<+ . I I I ' 11 9e e ' e *

1. 4 P

%E1 <*+- ,, +, * ,+ 0, & 1 * +, ,+* Q + & * / 0 <\ . - .& =<*. .7+- 6, , ., *, , *<*+7 0& / 0, & 1 * +, ,+* 8

, >*+ ,aN + E ?>*+ <+ & - * / 0 - .-* 7 . <4 / ,+* & ,&+< ./ 2/ .0 . + <+ <4 & 6 0& & 7 , Q 6< * 6 , + ,+* & / 0 Q -+** <+ . 0 J* - * & , *, +, 0 , -+ * * + & 44 - +, & 44 , + +, <- % * 6

E9 8, & 0&)+66 , + * . - * . 6 <4 & & ?+ .0* + & , . 6 >*+ , D Q 6< * 6 , + ,+* & -* 6 +, -+** ,<+ . - ?4 J* -

%E15 J%199 6 >*+ . <+ .

' + . ' + . , *7 + * + 6 ;=+*. '* 66+ .& 7 0 +/ . & , 6 ,, * D- +, * 6 , + ,*+6 & 3* - * <. <+ .

&5< E 6 + + 0 * +, C /* -&6+ , << * . ! & 7 0 & ,, * - +, * 6 , + 07 + & 6! + & + & * ?+ . <+ .

) < * -(-&6+ , << * 0 Q + ?&+6 * 6 , +* ? ,+*6 * 0* .& . & , 6 * ? . + & 6 Q . <+ .

)& * = *6+ &, + + & . - , 5 = *6+ & << , .Q & . & ,, * - / & 3* - +, , D* 6 , + ,+* & -* 6 /+7 6 + . + / . 7 * . + & 6 . <+ .

2R1 ' & & , - +, , +*, * 0 & / ++. +, & . , . +, & 1 +, ,+* , *, 6 ** 0 ?4 & & * ,, + , = . ?&+ & 7 . , *7 . , + ? +, & 8, Q & 3+H 7 * 6 Q & F , + / 0 < & , + +? 0 *6 %& .+6 +, , +*, * + / <*+ + - . & <* <*+- ,, 0, +& 1 * +, ,+*, + ? , , - +* & / ++. +, & -& .* <*+-* / ? G & , . 1 * Q +<& = . & * ,, +, & , +, = . Q <4 <\ / G- < + & .+6 +, , +*, 6 9 ? <<*+7

%E15 J%15 & ?&+ . <+, + (/ ,+* ? * * . * <* , - +, * 6 4

E9 8, .7+- * , 6 . & <*+/ + <4 ? , D . - * / ? +-+ - ** 0 ? ,, <*+7 0 <4 < * +, & / 1 .6 . + <*+/ +

0

I ' & F , + / 0 < ?& & * <4 < * +, & / D , + . * 7 0, +& 1 * +, ,+* <*+7 +* +) ** . 6 & ,, *6 7

%E15 J%15 & , 6 . <+, + 0 * . +)& * 1 +, . + Q * , 6 . / & =+*. .7., - <4 & , 6+ +, ?+ ? ,, ? * -+ - ** 0 Q <* 0 & / D . 6 . + <*+/ + & 6 . + F , + / 0 < ?& & * & < * +, & 9%& D . 6 . + <*+/ + 0,)& * 1 * +, . H + / <*+7 0, & 6 + - ** . & ,, *6 7

%E15 J%15 & , 6 . <+, + * . Q * , 6 . 0, * . 6 > * +,) */ * . & F , + / 0 < ?& & * <4 3N * +, & / . 6 . + <*+/ + 0, & 6 + - ** . % ,, *6 7

$ 0 0 $ 0 S $ 1 5 9e e ' e * e

& % +, : , 0 , & 1 * +, . \ j ,+ Q 80, +* Q * . 6 > * +,) */ ** * / J*

1 '9I >D53E & , -+ . . +, >#(+> - * 9** $ <* , - +, & 3* - & 8, E 0&)+66 , + * ! & 1, +, *

. 6 >*+? , + + E 0& >*+ -& * *0 + / *0 +, 1 . j / *0& 0 . * 6 * < *0 . +, 6 - <* 8 . - . < * D)+ - D . , + 6 D , ?+6 ' <+ & , ? & 1 * +, ,+* 4 3 *6 J* - , 7 * D 6 , - & , * +, 0D, @ 78 \ . & * * ' <+ & ,+c , ? & 1 * +, . + . * . 6 > * +,) / ** (? 4 3 *6 , - & , . , * . +, 0 9K4 78 \ Q . 6) , ,- , & ? 4 3 *6 % Z& (. , ? & ,+*, . < *,+ . (? ,)*4 ? . * & ,+*, . 6 ! . , 0 4 . & & * & & D , ? * +3+. ; >*+ 6

' + . - ' + . , *7 +* + 6 =+*. ' * 6+ . 0 . , 7 * 6 * . < *0 . +, 6 - <* 8 . - . < * -+ j . , + 6 , ?+6 ' <+ & , ? & 1* +, D/*, Q . + & Q * . 6 > * +,) */ ** ; 3 *6 J* - , 7 D 6 , - & , * +, 0 9N 78 \ Q &* * * . , ? D e+, & 6 (? R *, , - & 6 , +*, .) , , & ? & J* - . , ? ?& & & . <+ . & & * & & D , ? * +3+. ' e ' + .

?%(/' E 6 + ' +,' C /* -&6+ ' 0 .' ' =' *' '
E * .' < *0 .' +,' 6 -' <* 8 . -' Q' < * ' -+ -' .'
,+ 6 ',?+* ' ' <+ ' &'&'/ 0' ' J* -'&', ?' *'
. 6' > *' ';' 3 *6 ' ' J* -', -'&',*' . ' +,'
0 ,'9U'78@Q' '&* ' *' .'&'/ ,+*'&',.' 6 '
&' ?'&'1 * '+,' ,+*'&*'/ '.' +', '&6'&*, *'
/&'&*.',*+6'+&*'&'&'?'0+ ',+*'2* '&'&'. .'
+', '&'1 * '+,' . + '/'&*.'&'&'? ' *0', -('
'43 *6 ') ,',- '< '.'&'&'&'* &' '&'
& ',? *' +'3+.' ;' &'^E 6 +
0
) < 6' *-(' -&6+ ' 0 .' &* ' *'Q' /+7' '8
6 * .'< *0 .'+,'6 -'<* 8 . -'Q'< * '-+ -'Q',+ 6 '
,?+* ' ' <+ ' &'&'/ 0' 'J* -'&', ?' ';'3 *6 '
, 7 * ' 6 ', -' 0 ,'9\'78@Q' '&* '&'1 * '+,'
. + '&'1 * '+,' ,+*'$Q' *' . 6' > *' +,') */ ** 4'
) ,',- '< '.'&' '&'* &''&',& ',? *' +'
3+.' ' 4 '-&6
' $

)& * '= ** + &',+' +' &'. - ,' 5+/ *'= *6+ &'/ '
+,'1 ' 0 .' &* ',+ *' *' 6 * .'< *0 .' +,' 6 -'<* H
8 . -'Q!'< * '-+ -'Q ,+ 6 ',?+* ' ' <+ ' &'&'
/ 0'8'J* -'&', ?'&'1 * '+,' ,+*'Q' *' . 6' > *'
, 7 * ' 6 ' ' '3 *6 ' 'J* -', -' 0 ,'9k'78l'Q'
'.* ' .'&'&' (? ', ?'? (0' '&'0 *. '
+,' ;'3 *6 '+' ?&+'? '- .'&'1 * '+,' . + '/ '
7&'? ' +' -F '? &'&'1 * '/ ,+*'& ' 6 ') ,'
,- '< ' .'&' '&' 8 &' '&'& D' ,? *' +'3+.' .'
&' '? ', -' 0 ,'9\'78@Q' '&* '&'&', ?'&'
, .'1 * '+,' . + ' $)&é= *6+
I I I ' =1'
e e ' e * e

- '+,'&',*,' , + '+,'&'- ** ' * 6 ' ' '. - * .'
+' /'&0&' * ,+ ';' '+,'&', /8 - 'F,'&'C 0.+6 '
/'?* 0',< (0'+*' '+&* 6 *' +,'? ' +'.,+? 4'
F ** '+*4 6< 0 '& ' 8 , ',+ '<+? *' .' &+* '+*'
0&'Q' '+'&'/)+ ' .'/'&' 0&'-'+,'&',+ *&'
, + '+,'& ' '- ** ' * 6 ' ' ', 'Q'+*. .'
' + '+,'&' ', /8 -'? &'&'C 0.+6 '? &+ '
G< ,' 7',*+6'& ' 8 , '+*'/ ' *7'3+ -('<* 6 '
+'0+'+' &'C 0.+6 '+,'J* -'+*'+&*+,'&'.+6 + '
, /8 -'+'&'J* -&'C 0' ,*'&',*,'.'+,' '&' G'
+'-+6'9k'78\' '&* ' *'+*'/ 0' * .' '&' .'
C 0.+6 '+,'J* -'+*')+ * ',+* .'<*, 6'+', '+*'
/ .'&*' , *'&',*,'+,' 0 ,'&' .' *'9\'78 '8
* ' *'? &+ 'G<*,' 7',*+6'& ' 8 , '+*'&' *7'
)+ -2' .*'&'< '+,'* ,+ '.'/'&', G ' &'
-'+,'&', G' * 6 '+,'C 0' 6 '&'J ,&' ' '<'
<+ .'-+ - . .' .'. - *.'&'&' *' 6 '/',+*,' .'
,+*'* ,+ '-+6 6 .'/'&'<* . - ,,+*'K-+ ,+*'&'+'&'-+6'
6+' ?' 0++.' F 'Q'* ,+ 'I 7*&8 ' ' ' +,'7 * '
&'&' .' +&'1 * '+,' ,+*' +&'1 * '+,' . + '
.' *' . 6'> *'+,') */ ** ' .' 7 * '+&*'&' *' ,,+- '
.' --+6< - '-+6< .' <+'&7'<* 6 .' +' -+6 6 '
.' *'0 '+,'&'_ .'-* 6 '+,'* ,+ '$Q' , 6 8 , '
', ', *' '&' 8 , '/ 0' 0 .0 .' ''8 ,' .' - ,, *'
? *' 0 ,'&'J* -&'C 0',+*'&'6 -'+,'&'* H
0+'Q' / * '+,'&'< +< '&'& ',+* 6 .'< *,+ '/ 0'
7'-+ 6 'Q'/+* ', /8 -'+,'&'* 6'-+ * *'+'&*'
* '. ' .' .0 -'. .' '&'6+ &'+,' '
' 0 ,'Q'* 6 '6+ &'+,'&' *'96'78' 0& '
' .' <+'&',*,' -+ .' .' +*' '+*'+&*'+,'&'
. '+,'&'6+ &'+,' *'J /* *' *-&'+*' '+*'+&*'
+,'&'6+ &'+,'&' *'9\'78@Q'< ' ' ' '
+' '&* ' ',+*'Q' *' .'J /*' @'78@ '
'8, 7'6+,' * ,+ / ' .' . , '* ' .'8+ < ' '*6 '
.' +< ' * / +'? &'&'J* -&'C 0' .'&',+*- '
*6 ' 0 ,'&' 8 , ' .'&' 3+7 * 6 4' .'8+ ' '
6 ' .'+< ' / +'? &'&'J* -&'C 0' .'&',+*- '
+' 7 .'& *' 7')+ * ' .'&' 8 , '.+6 + '
.' +'F ** ' .' 6< 0 '& '*+ '<+? *' .' &+* '
.*0&'Q' '+'&')*+ '.'.',0&'*,,' .'+<<+,'& '
8 , ',+*- '? * 0' 0,'&'J* -&'C 0' 'J .*' .'
,'?&*'< * - * ' '=+ .+ ' + (*(' ' .' *'
+ ,'I 6 *'Q-'.'. ' / ' , ,'(<'-+** ,<+ . -'
'? &'07'& <'*..' .'-+ - '+'&' ' 6 ' .'
&' 6 '+,'&'<*+ , '*80+ ' .'& *' 7')+ * '
+*' , '? '+' .'&7'*6 .'?&' &' .'C 0.+6 '
+,'J* -' .'.+6 + ' /8 -'+'&'J* F-&'C 0' -'&'
. ',< -, .' '&',+, .' -'+,' * 6 '<, ' '
8\'8' '&* ' *'9&+* *'+*' + 0*'+*'+'&'7*'. '
? &+ ' 7', +6'& ' 8 , '+*'&' *7 ')+ - é %&*+?'
.+ 0' .'-+6 6 0'?& *+,'+*' '+*'+&*+,'&'. .'
/+7',< -, .'&'& ',+* 6 .'< *,+ ' .' (' '+,'
& 6'&7'-+6 6 .' .'*0 '+,'&'-* 6 '+,'&0&'
* ,+ '*/ + 'Q' , 6 8 , ' .'*' - +*' *'Q'< *'
&*+,'?&-&'/ 0',+ .'/'&' 8 , ' .'&'1 '+,'
* 6 '&'+0&'+'/'< & .'? &',+*, *'+,' , '
. ' .'0++.' +',&' **+*' +,'+&*'+'-+6 6 '&' ('
&* , *' .'&*,+*'&' .'&D' . , . *'/+7' 6 .'
.'&*' ,,+- ' .' --+6< - '+'&7'-+6< * .'/ ,+*'&'
8 , ' .'&'1 '+,' * 6 '?&'&' * 6 '
&+ ,'+,'1. / *0&'&'&*.'. '+,' '&' G'+'-+6'
$ +?' ,'/'< ,'+'&7'&*.' .', ', -'.'. -* '
07 ' .'<*+ -'.'0 ,'&6''&' .'6 *' 6 *'
. *?* ' ' '6+*' 0&'-+ .' '&' .'<* '
66+ .'+*' . 6 '+,'&0&'* ,+ ' .'G - + '&*+,'
&' .' *' 6 ' ? *'&' 8 , ' .7+- '<+ '&', .'
&*.'. '+,' '9\'78@ ', 7 ' *'-+6< * 0'< *,+ '
'? &' *' *-(' E++6 ' .' *' 3 /*'1D+' .7+- '
?&+'/ ' -'+,'*7')+ -'+,'&'. '&' ' 0&'.

'1)511%' 'J+*, *'0 '&'1 * '+,' ,+*'Q' '
. + 'Q' *' . 6' > *'+,') */ **

%1. / *0&'&', -+ .'. '+,' '9\'78l' .' ', 7 '
' '&' 66+ .' / ' .' . 6 ',+'&0&'
* ,+ '* , .' .'<*, ? .'/ ,+*'& ' 8 , ' .'&'1, ''
+,' *& 6 8 ?* ' '= ' .' G< . ' . *'&'& .'+,'
&'. < '+,'&'. * -+*'+,')& - *'C < *'+,'&'T * *'
D'-+ ,+*6' +' ' -' .'? ** .'+,'&'=+*. ' .'+&*'
+,'& 8 , ' *7')+ - ' '6 *' .'+'&' ,, -', *'
6 + .' '&' , -'+,' *' 6 ' ? *'& ' .7+'
-',+*'&'E 0& ' *, '&'6 *' .*'?* '0 ,'
+&'1 * '+,' ,+*' +&'1 * '+,' . . ' .' *' . 6'
> *'+,') */ ** ' . .7 * '+&*'& *' ,,+- ' .' --+6H
< - '% %&' & -(' -+< ' ?& *+,' '1 0 &'<*+. - .' '$
6 *', *'< -, .'6 (&'6 8+ '%& '?& *' +? &'
, . 0'/'&'?' .' -'+,' * 6 ' .'-+ , '<* -'
F'+,'&'C 0.+6 '&'-* 6 '+,'* ,+ ' .' , 6 8 , '
/'< &'/'? &',+*, *'+,', ' .' .'0++. ' .'/'
&'&*.' -'+,'&',*,' * 6 '+,'C 0' 6 '&'J*,' &'
+ '*/ ' +< ' 0,' &'C 0'<*,+ ' .*'&'< '+,'
,+*, *' .'/'&'&* &' -'+,' &', -+ .' *& 6 '
+,'C 0' 6 '&' -+ .' '8', '&' + '*/ ' 0 &,'
&'C 0'<*,+ '+*' &+* ' .'?&+,+'*/ '+'/'< '
&.', *'&'F ' .'F '+,'&',.'*/ +' .'/'
&', -+ .' -'+,'&', -+ .', , +'+,'&',*,' * '+,'C 0'
)&* '&' -+ .' ' ', 'Q'. - *.'& ',' < *,+ '
&'< +'-+ * 7'+*' . +' . <* 7'. <+,'+*', ,< .'&'
C 0',*+6'&', '&+ + *' .'C 0 '6'+,'&'+*' '
+&*'+,'& ' '.+6 + '+*' +', ,< .' 'C 0',*+6'&'
G *-,'+,'&'3+7 * 6 '+*'& ' 7'? *'+*' ('<*6 '
0 ,'&'C 0'+*'& ' ,', 0*'+*'+&*'+' 7 .'
*'+,'& ' .+6 + '&'& '/' .8 .0 .' ' * + *'
.'< & .' ' &'-, '+,'&0&'* ,+ ' .'/'&', -+ .

+,' - ' 9 \' 78 ' ', 7 ' * ' * ' <<+ .' .' +*. .'
+' -+ - **' ? &' .' / ' ,, , 0' +' & ' 8 , ' .7+- ' ' <*+ '
, - 0' & ' / ' +*' . 6 ' +,' * ,+ ' - , .' ' & '
, - ' 0 ,' & ' * / ' ' J* - ' %& * , *' & ' 8 , ' .'
.7+- ' .' & ' <*+* ' 6 .' -+ - ** 0' ? &' & 6' . , * .' & '
& ' .' <*+- ' +,' * ,+ ' * , .' / ,+*' & ' * 6 ' ' & '
$, ' .7+- , - ' 0 ,' & ',+* 6 .' < *,+ ' .' + & * '
$ & *' ,+- ' 9 0&' / ' - .' .' --+*. 0 ' ' & ' . '
. , . * ' /+7 ' 6 .' Q' + & * ' & *' --+6< - ' .' ,+- '
/ 0' &* ' < / -(' - .' / ' 6 - ,' ' & ' / *' .' ' & '
0* ' .++*' +,' & ' * 6 '&+ , ' .' + '+,' & 6' -+6< * 0'$
& ' .' *' 6 ' ? *'& ' .7+- ' .' & '+ & *' <*+* '
/+7 ' 6 .' <*+. - .' ' <* , - ' +,' & ' ' & 0&')+6 '
6 , + *' .' & ' 1, '+,' * 6 ' & ',+*, . ' * ' .'
. 6 ' +,' & 0&' * ,2 ' ?* ' ' = ' <+ ' < *-&6 '
. *' & '& .' .', /,-* < + ' +,' & '. < ' . * - +*' +,' & '
)& - * ' (< *' +,' & ' T * *' D' ? &' ' & -('
-+< ' +,' , ' .' * ' +,' * ,+ ' * .' +' 1 0 &' . *'
& ', /,-* < + ' +,' 3 +*0 ' R ,-+ ' +,' % */ ' =+*.') *(' +,'
1 0 , *' .' +,' & ' .' *' 6 ' ? *' / ' ' .7+- '
.' ' <*+. - .' ' G - + ' +,' & ' .' 6 6+ . '. .' & ' '
&* '. ' +,' 8 *-&' 9 \' 8 \' ', 7 ' * ' . *' & ' & ' .'
+,' 6 ' > **' / '& * .' / * 0' & ' & ' .' 6 ' > **'
/ '& * .' ' & ' -+6 6 .' +,' & ', .' * ' +,' * ,+ '
* , .' ' & ' , - ' +,' & ' .' *' 6 ' ? *' & ' 8 , '
c .7+< ' 0,' & ', . '. , . *' .' / ' 7 * ' & *+,' < , ' +' & '
6 *- '-*+, ' +,' 1.K ' .' +' & ' < *' .', +* ' +,' = &' .' <+ '
& ' .' 6 *- ' -*+ ' .' ' & ' .' < *' Q', G+ *' * G 7 ' Q'
, -- , 7 ' , *' &* ' 7 * ' + . ' +,' * 6< ' +< ' <*+- '
+ ' .' < / - ' * . 0' +,' & ' .' * ' / ' 7 * ' +,'
& ' 6 ' '& ' 8 , ' 6 ' .' &+* ' -+6 6 . .' .'
-& *0 .' & ' .' +& ' 1 *_' +,' ,+*' +& ' 1 * ' +,' . + '
Q' *' . 6' > *' +,') */ ** ' .' . R *, ' + & * ' & *' ,,+- '
.' --+6< - ' .' ,' .',, G ' ', ' .+ / ' +,' & ' . '
'-+ 0' ' & ',+, .' 6 ' .' & ' 6 '4 .B. '
$, 0 + ' +,' & ' ? ,2' <* ' ' & ' *6 ' .' & '. ' ,B 2'
' Q' <+ ' & ', .' 6 *- ' -*+, ' Q' ' , ' Q' , G ' < ' + & *' , '
.+ / ' +,' & ' ' * '-+ 0' & ', .' 6 ' Q' + ', .'
6 ' Q' . 0 + ' +,'8 ' ? , '' .' & '. ' & * +,' ' .'
<+ ' & 4' .' < *' Q', . *' +,' = &' ' +' ++6< *' / ,+*' & '
' C 0 ' 8 , ' *.' & ' 1, ' +,' * 6 ' ? & ' & B *H
6 '&+ , ' +,' >. ' & ' &* .' . ' +,' ' & ' G ' +' -+6 ' '
& '&+ *' +,' - , ' & * ' +' . * ' & ' ?',+*' & '-* 6 ' / .'
.' 6 . ' - * , - + ' ' G<'* , ' ' & ' . ' * \' .' ?& -&'
G - + ' / * ' & ' ' & ' : ' .+ ' -+ ,+*6 ' +' & ' +*'
+,' & ' .' * ' ? &' & ' & * . ' -+ ' +,' ** ' . ,< .'
.' , 0' ' + & *' + 6 ' * F , ' /+ &' <+ ' & ' .'
6 *- ' -*+, ' .' < ' Q', + *' +,' = &' / ,+ ' Q' ' <* , - '
'+,' & ' ? ' ' , * ' .' ' /,-*7 0' +' & ',.' G - + ' ' & '
.' G - + ' Q' ' & ' * G 7 ' G - + ' 0 ,' & ' ? , '
- .' / ' 7 * ' +,' & ' <* - < ' * ' .' . 6 ' +,' & 0&'
* ,+ ' 6+* ', ' / * ' %+0 & *' ? &' < ' - ' +,' & ' '
6+,' &+ + * / ' * 7 ')+ - ' ?& */ ' <+ ' & ' -+ , . * + '
& * ' 6 + .' & ', . '=+*. ' & 7 ' * -+6 6 . .' +' & ' R ,H
-+ ' +,' % */ ' =+*.') *(' > 0 , *' +', /,-* 7 ' & ' / ' .'
. 6 ' +' / ' , , .' ' / ,+*' & ' & ' G ' , : 0' , +'
+,' * 6 ' ' & ' , - ' +,' & ' .' *' 6 ' ? *' & '
' .7+- ' 0 ,' -&' < *,+ ' ', + .' / ' 0 7 ' ' '
, ', /,-* 7 .' . *' & ' & ' .' ' / 0' +*' & 7 0' / ' '
J* - '-+ * * ' +' &' ' - ' +,' * 6 ' 6 . ' & * '
.' ?& */ ' & ' & 7 ' ,+' 0* .' ? ** <.' +' & '. * - +*' +,'
& ')& - * ' .' & '. <+ ' +' ?* ' & ' .' / ' .'
6 6+ . ' ' & '+*. B ,+*6 ' Q' 6 *' .' <<+ .' & '
(< *' +,' & ' T * *' ' +' << .' & ' 6 & * +' ' 6 H
*' 6 + .' ' & ' .' -' *,' * 7 ')+ - ' ?& -& ' . .'
& ' ', 7 &' . ' +,' *-&' 9 \' 78@ ', 7 ' * ' ? &'
& ',+*, .' + & *' - ' +,' * 7 ')+ - ' <<+ 0' & ' .' *'
* -(' E+6 ' .' *' 3 / *' 1 + ' +' -+ - **' ? &' & ' !'
8 , ' .7+- ' ' & ' <*+- ' /+7 ' 6 + .4' +,' & ' . ' +*

.' -+ ' /+7 ',< - , . ' %& * , *' & ' 8 , ' .7+- ' -'
& ' <*+ \' /+7 ' 6 .' -+ - ** 0' ? &' & 6' -* 7 .' & ' & K'
,+*, .' <*+- ' +,' * ,+ ' 6 0& ' / ' -+ +? .' +' ' - * . '
.' & ' & ', 6 ' . ' 6 0& ' / ' , 0 .' +' & 6' ,+*' 7 * , 0'
+,' & ' G - + ' 0 ,' & ' < * ' Q' (0' <*+/ + ' / ' &+'
? , ' .' + & *' 7 . - ' B : & -&' . * B +,' & ' B 8 , '
.7+- ' / 0' -+ , . * .' / ' & ' 8 , ' & 0&')+6 6 ,, + *'
.' & ' 1, ' +,' * 6 ' & ' -2 +? .' & ',+*, .' <*+- '
+,' * ,+ ' ' & ',+ * '. ' +,' ' , ' / ' < , ' .' , '
0 .' & ', 6 ' . ' +' 9* ' ' .7+- ' ,+*' 7 * , 0' & ' '
G - + ' 0 ,' & ' < * ' .' (0' <*+/ + ' / ' & '
? ,,' Q' + & *' 7 . - ' .' ' < * ' .' ? , 4' ? * B
6 6+ .' < .' - ' +' & '. ' .' < .' ', * & *' . 0 - '
+' & ' ' .7+- ',+*' /* 0 0' ' -& +,' & ' ? ,,' '
? * ' ?, ' - .' / ' 7 * ' +,' & ' <* - < ' / ' .' H
. ' * '+,' & 0&' * ,+ ' '& .' +' << * .' .' --+*. 0 '
& ',+*, .' <*+- ' +,' * ,+ ' ' & ' , - ' +,' & ' ' .H
7+- ' 0 ,' & ',+* 6 .' < *,+ ' . , . * ' .' + & * ' & *B
,+- ' .' --+6< - ' % 0' 0 ' < / -(' - .' ' & '
/ *' .' ' & ' 0* ' .++*' +,' & ' * 6 '&+ , ' & ' 8 , '
& 0&')+6 6 %+ *' .' & ' 1, ' +,' * 6 ' -+ .' & '
, 6 ' ' & ' ' + ' . ' +,' ' D/' , ' / ' < , ' .B
+*. .' & ' < * ' Q' ? ,T' & ' .' & * ' +' .' .'
0* .' , * & *' . 0 - ' +' & ' ' .7+- ' 0 ,' & '
? ,)' ? &' <+? *' +' & 6' +' - , ' <<* & .' .' - * ' & 6B
D' & ' / *' ? & ' * ' & ' .' - , ' .' & * , * ' & ' .'
- + ' +,' * ,+ ' / 0' - .' <+ ' & ' ' + ' . ' +,' '
9 \' 78@ .' ', 7 ' * ' & ', .' 6 ' > **' / '& * .'
?&+' . ' G - ' & ',+*, . ' * ' +,' * ,+ ' .' & ' ? ,,,'
, * ' .', /, * 7 0' 7m ,2' +' & ' . ' G - + ' -+6< * .'
< *,+ D ' ' <* , - ' +,' & ' ' & 0&')+6 6 ,, +4 *' .' & '
1, ' +,' * 6 ' , ' , *' < / - ' * . 0' +,' & ' .B
/ ' +,' * ,+ ' ' -+ ' Q' & ' G - + ' & *+,',+*, . ' & ', .'
& * .' .' ? , ' / 0B + 6 ' +* ' .' **+0 ' ' H

.' -+ ' /+7 ',< - , . ' %& * , *' & ' 8 , ' .7+- ' -'
& ' <*+ \' /+7 ' 6 .' -+ - ** 0' ? &' & 6' -* 7 .' & ' & K'
,+*, .' <*+- ' +,' * ,+ ' 6 0& ' / ' -+ +? .' +' ' - * . '
.' & ' & ', 6 ' . ' 6 0& ' / ' , 0 .' +' & 6' ,+*' 7 * , 0'
+,' & ' G - + ' 0 ,' & ' < * ' Q' (0' <*+/ + ' / ' &+'
? , ' .' + & *' 7 . - ' B : & -&' . * B +,' & ' B 8 , '
.7+- ' / 0' -+ , . * .' / ' & ' 8 , ' & 0&')+6 6 ,, + *'
.' & ' 1, ' +,' * 6 ' & ' -2 +? .' & ',+*, .' <*+- '
+,' * ,+ ' ' & ',+ * '. ' +,' ' , ' / ' < , ' .' , '
0 .' & ', 6 ' . ' +' 9* ' ' .7+- ' ,+*' 7 * , 0' & ' '
G - + ' 0 ,' & ' < * ' .' (0' <*+/ + ' / ' & '
? ,,' Q' + & *' 7 . - ' .' ' < * ' .' ? , 4' ? * B
6 6+ .' < .' - ' +' & '. ' .' < .' ', * & *' . 0 - '
+' & ' ' .7+- ',+*' /* 0 0' ' -& +,' & ' ? ,,' '
? * ' ?, ' - .' / ' 7 * ' +,' & ' <* - < ' / ' .' H
. ' * '+,' & 0&' * ,+ ' '& .' +' << * .' .' --+*. 0 '
& ',+*, .' <*+- ' +,' * ,+ ' ' & ' , - ' +,' & ' ' .H
7+- ' 0 ,' & ',+* 6 .' < *,+ ' . , . * ' .' + & * ' & *B
,+- ' .' --+6< - ' % 0' 0 ' < / -(' - .' ' & '
/ *' .' ' & ' 0* ' .++*' +,' & ' * 6 '&+ , ' & ' 8 , '
& 0&')+6 6 %+ *' .' & ' 1, ' +,' * 6 ' -+ .' & '
, 6 ' ' & ' ' + ' . ' +,' ' D/' , ' / ' < , ' .B
+*. .' & ' < * ' Q' ? ,T' & ' .' & * ' +' .' .'
0* .' , * & *' . 0 - ' +' & ' ' .7+- ' 0 ,' & '
? ,)' ? &' <+? *' +' & 6' +' - , ' <<* & .' .' - * ' & 6B
D' & ' / *' ? & ' * ' & ' .' - , ' .' & * , * ' & ' .'
- + ' +,' * ,+ ' / 0' - .' <+ ' & ' ' + ' . ' +,' '
9 \' 78@ .' ', 7 ' * ' & ', .' 6 ' > **' / '& * .'
?&+' . ' G - ' & ',+*, . ' * ' +,' * ,+ ' .' & ' ? ,,,'
, * ' .', /, * 7 0' 7m ,2' +' & ' . ' G - + ' -+6< * .'
< *,+ D ' ' <* , - ' +,' & ' ' & 0&')+6 6 ,, +4 *' .' & '
1, ' +,' * 6 ' , ' , *' < / - ' * . 0' +,' & ' .B
/ ' +,' * ,+ ' ' -+ ' Q' & ' G - + ' & *+,',+*, . ' & ', .'
& * .' .' ? , ' / 0B + 6 ' +* ' .' **+0 ' ' H

' -+ 0' ' & ',+, . ' 6 ' .' & ' 6 '4 .B. '
$, 0 + ' +,' & ' ? ,2' <* ' ' & ' *6 ' .' & '. ' ,B 2'
' Q' <+ ' & ', .' 6 *- ' -*+, ' Q' ' , ' Q' , G ' < ' + & *' , '
.+ / ' +,' & ' ' * '-+ 0' & ', .' 6 ' Q' + ', .'
6 ' Q' . 0 + ' +,'8 ' ? , '' .' & '. ' & * +,' ' .'
<+ ' & 4' .' < *' Q', . *' +,' = &' ' +' ++6< *' / ,+*' & '
' C 0 ' 8 , ' *.' & ' 1, ' +,' * 6 ' ? & ' & B *H
6 '&+ , ' +,' >. ' & ' &* .' . ' +,' ' & ' G ' +' -+6 ' '
& '&+ *' +,' - , ' & * ' +' . * ' & ' ?',+*' & '-* 6 ' / .'
.' 6 . ' - * , - + ' ' G<'* , ' ' & ' . ' * \' .' ?& -&'
G - + ' / * ' & ' ' & ' : ' .+ ' -+ ,+*6 ' +' & ' +*'
+,' & ' .' * ' ? &' & ' & * . ' -+ ' +,' ** ' . ,< .'
.' , 0' ' + & *' + 6 ' * F , ' /+ &' <+ ' & ' .'
6 *- ' -*+, ' .' < ' Q', + *' +,' = &' / ,+ ' Q' ' <* , - '
'+,' & ' ? ' ' , * ' .' ' /,-*7 0' +' & ',.' G - + ' ' & '
.' G - + ' Q' ' & ' * G 7 ' G - + ' 0 ,' & ' ? , '
- .' / ' 7 * ' +,' & ' <* - < ' * ' .' . 6 ' +,' & 0&'
* ,+ ' 6+* ', ' / * ' %+0 & *' ? &' < ' - ' +,' & ' '
6+,' &+ + * / ' * 7 ')+ - ' ?& */ ' <+ ' & ' -+ , . * + '
& * ' 6 + .' & ', . '=+*. ' & 7 ' * -+6 6 . .' +' & ' R ,H
-+ ' +,' % */ ' =+*.') *(' > 0 , *' +', /,-* 7 ' & ' / ' .'
. 6 ' +' / ' , , .' ' / ,+*' & ' & ' G ' , : 0' , +'
+,' * 6 ' ' & ' , - ' +,' & ' .' *' 6 ' ? *' & '
' .7+- ' 0 ,' -&' < *,+ ' ', + .' / ' 0 7 ' ' '
, ', /,-* 7 .' . *' & ' & ' .' ' / 0' +*' & 7 0' / ' '
J* - '-+ * * ' +' &' ' - ' +,' * 6 ' 6 . ' & * '
.' ?& */ ' & ' & 7 ' ,+' 0* .' ? ** <.' +' & '. * - +*' +,'
& ')& - * ' .' & '. <+ ' +' ?* ' & ' .' / ' .'
6 6+ . ' ' & '+*. B ,+*6 ' Q' 6 *' .' <<+ .' & '
(< *' +,' & ' T * *' ' +' << .' & ' 6 & * +' ' 6 H
*' 6 + .' ' & ' .' -' *,' * 7 ')+ - ' ?& -& ' . .'
& ' ', 7 &' . ' +,' *-&' 9 \' 78@ ', 7 ' * ' ? &'
& ',+*, .' + & *' - ' +,' * 7 ')+ - ' <<+ 0' & ' .' *'
* -(' E+6 ' .' *' 3 / *' 1 + ' +' -+ - **' ? &' & ' !'
8 , ' .7+- ' ' & ' <*+- ' /+7 ' 6 + .4' +,' & ' . ' +*

.' -+ ' /+7 ',< - , . ' %& * , *' & ' 8 , ' .7+- ' -'
& ' <*+ \' /+7 ' 6 .' -+ - ** 0' ? &' & 6' -* 7 .' & ' & K'
,+*, .' <*+- ' +,' * ,+ ' 6 0& ' / ' -+ +? .' +' ' - * . '
.' & ' & ', 6 ' . ' 6 0& ' / ' , 0 .' +' & 6' ,+*' 7 * , 0'
+,' & ' G - + ' 0 ,' & ' < * ' Q' (0' <*+/ + ' / ' &+'
? , ' .' + & *' 7 . - ' B : & -&' . * B +,' & ' B 8 , '
.7+- ' / 0' -+ , . * .' / ' & ' 8 , ' & 0&')+6 6 ,, + *'
.' & ' 1, ' +,' * 6 ' & ' -2 +? .' & ',+*, .' <*+- '
+,' * ,+ ' ' & ',+ * '. ' +,' ' , ' / ' < , ' .' , '
0 .' & ', 6 ' . ' +' 9* ' ' .7+- ' ,+*' 7 * , 0' & ' '
G - + ' 0 ,' & ' < * ' .' (0' <*+/ + ' / ' & '
? ,,' Q' + & *' 7 . - ' .' ' < * ' .' ? , 4' ? * B
6 6+ .' < .' - ' +' & '. ' .' < .' ', * & *' . 0 - '
+' & ' ' .7+- ',+*' /* 0 0' ' -& +,' & ' ? ,,' '
? * ' ?, ' - .' / ' 7 * ' +,' & ' <* - < ' / ' .' H
. ' * '+,' & 0&' * ,+ ' '& .' +' << * .' .' --+*. 0 '
& ',+*, .' <*+- ' +,' * ,+ ' ' & ' , - ' +,' & ' ' .H
7+- ' 0 ,' & ',+* 6 .' < *,+ ' . , . * ' .' + & * ' & *B
,+- ' .' --+6< - ' % 0' 0 ' < / -(' - .' ' & '
/ *' .' ' & ' 0* ' .++*' +,' & ' * 6 '&+ , ' & ' 8 , '
& 0&')+6 6 %+ *' .' & ' 1, ' +,' * 6 ' -+ .' & '
, 6 ' ' & ' ' + ' . ' +,' ' D/' , ' / ' < , ' .B
+*. .' & ' < * ' Q' ? ,T' & ' .' & * ' +' .' .'
0* .' , * & *' . 0 - ' +' & ' ' .7+- ' 0 ,' & '
? ,)' ? &' <+? *' +' & 6' +' - , ' <<* & .' .' - * ' & 6B
D' & ' / *' ? & ' * ' & ' .' - , ' .' & * , * ' & ' .'
- + ' +,' * ,+ ' / 0' - .' <+ ' & ' ' + ' . ' +,' '
9 \' 78@ .' ', 7 ' * ' & ', .' 6 ' > **' / '& * .'
?&+' . ' G - ' & ',+*, . ' * ' +,' * ,+ ' .' & ' ? ,,,'
, * ' .', /, * 7 0' 7m ,2' +' & ' . ' G - + ' -+6< * .'
< *,+ D ' ' <* , - ' +,' & ' ' & 0&')+6 6 ,, +4 *' .' & '
1, ' +,' * 6 ' , ' , *' < / - ' * . 0' +,' & ' .B
/ ' +,' * ,+ ' ' -+ ' Q' & ' G - + ' & *+,',+*, . ' & ', .'
& * .' .' ? , ' / 0B + 6 ' +* ' .' **+0 ' ' H

<+ .' & ' & ' & ', .' G - + ' ,+* 6 * ' , /,-* 7 .' / ' & ', .'
& 8 .' Q' ? ,, ' ?, * ' * ' G - + ' ' ' / + &' ' 6 *'
& * ' -+ .' .' & ' & ' 6 ' ? * ' * ' ' . ' 9&+ .'
,? *' +' 3+.' 4 & *' + & ' Q' . <+, + ' ?* ' <+ ' & '
/ -(' +,' & ' .' G - + ' .', /,-* 7 . / ' & 6' .' & '
* , . ' +,' * 6 ' 6+ ' , ' / * ' %& * , *' & ' H
8 , ' & 0&')+6 6 ,, + *' <.' & ' 1 ' +,' * 6 ' -+ '
+? .' & ' .' <*+- ' +,' & 0&' * ,+ ' ' & ' K ' 0& '
. ' +,' & .' 6+ &' .' *' +,' 3+.',+*, .' .',*+6' & '
' 0& ' . ' +,' ' ' & ' , *, ' . ' +,' ' , B
-+ ,+*6' +' & ' 7 * L' ? ** . ' +,' B, 6 ' 6 . ' & * '
.' ?& -&' <*+- ' / 0' 0 ' - .' <+ ' & ' .', *, ' . ' +,'
' , ' .' & ' 8 , ' .7+- .' & ' <*+* ' /+7 6 . 4'
-+ - ** 0' ? &', &, ' -+6< * 0' < *,+* ' .' & ' .' +& B
1 * ' +,' ,+* ' +& ' 1 * ' +,' . + B .' *' . 6' > *' B
+,') */ ** ' .' . 7 * ' + & * ' & *' ,+- ' .' --+6< - '
/ 0' ?, ' 6 6+ .' / ' & ' .' 6 ' > **' / '
& * .' ? &' . < .' -+ ' .' + .' +,' * 6< ' .' + & *'
+ 6 ' * F ' +' & 7 ' ,? * .' +' & ' ,2*, .' . 6 '
.' / 0' &* , ' < / -(' - .' /^8 6 - * ' ' & ' / *' .' '
'! & ' 0* ' .++*' <,' & ' * 6 '&+ , ' .' +' -+6< * 0' & '
8 , ' .7+- ' . - * .' & ' & ' , , .' <* 6 ' (' 0 ,'
& ' 1 * ' +,' ,+* ' .' . + ' .B *' . 6' > *' +,'
) */ ** ' P & ' G - + ' / 0' * . ' 7 * , .' ' * 6 Z'
.' <*+. - .',& ' ,+*, .' - ' ! ' ? ** .' +,') + 6 - ' ,+*' * , 0' +,'
& ' ,+*, .' <*+- ' ?& -&' / 0' ,+' * .' & ' -* 7 .' & ' & '
$? ** &.' 6 0& ' / ' -+* . .' ' * 0 *.' & ',+* 6 .' < *,+ '
* ' . + - .' & ' & ' 6 0& ' & 7 ', * .+6 ' +' << *' Q' . cB
, .' *+. - .' ' <* , - ' +,' & ' 8 , ' & 0&')+6 6 ,, + *'
.' & ' 1, ' +,' * 6 ' * ' +,' * G + ' . *' & '
' 0 ' 0* .' ? ** .' +,' & ' =+*. ')+6 6 ,, + * '
+,' , - * ',+*' * G 0' +,' & ' .' + 6' 1 * B+,' ,+* ' +& '
1 * ' +,' . + ' Q' *' 6' > *' +,') */ ** ' .' & ' + & *'
< *,+ ' & * ' 6 .',*+6' & ' <*+- ' +,', 0 +*' &+* 0' +*'
. - + ' .' .' . . - .' 0 ,' & 6' ,+*' & ' -* 6 ' ad

J' ,

= % '%&(' $' / 0* & %4' J ', ' 7' 0 G 4 +)Y !

+ & * ' / .' ' 6 *' 6 , + .' ' & ', .' *' ?& -&'
' . .' .' 0 ' & ' & .' . '+,' <* ' 9U' 78' ', 7 '
*' ? &' & ' G - / '+,' * G + \' / * 0' & ' <+ ' *'
&' . '+,' <* ' 9U' 78_' ', 7 ' *' 6 ' 3 ** '
9 0 ,'< *, 7 ' '-+66 .'+,' & ', .' *' +,'* G + '
* , .' ' & ' , -'+,' & ', .' *' 6 ' ? *' & ' 8 , '
.7+- ' < ,' +' & ' 6 %- '-*+,' +,' 1 .' & .' / *0&' +,' & '
,& ** , .+6 '?; '?& -&' & , -')+ '? '&+ . 'Q' (< .8'
.' & * ' , *' & '-* 0' +,' &* ', 7 * '+ , ' +< ' <*+- '
$ < + '.'< / '* . 0' +,' & ', . ' *' / '7 * '+,' &
# 6 ' '& ' 8 , ' 6 ' ' &+* '* G .' & K' , .' +& '
1 * '+,' D/*' +& '1 * '+,' . + '!' *' . 6'> *' +,'
) */ ** ' .'+ & *', * ' 6 .',*+6' & ' <*+- ' +,', 0 + '
&+* 0' +*' . - + ' .' Q' . . - .' 0 ,' & 6',+*' & '
-* * ' .'- ,' / .' .'* +* .' 6' +'& ' 8 , '< - '
/ '. 7 * 0' & '? . & *+,' '6 *'< * - * '6 + .'
' *' .' G - + ' ' & ', . ' *'+,'* G + 'Q' G - + '
D,',+, .'* 0* ' ' & ' /++(' +,' .8+ * ' -+ ,+*6' +' & '
-'+,' * 6 '6+*', ' / * ' .' & *, *' & ' . ' +& '
1 * '+,' R9 ,+*' & '1 * '+,' . + 'Q' *' . 6'> *'
+,') */ ** 'P , . *' /+7 ' 6 .' / 0' - .'< /&-(' / '
'6 - *' '6 *',+*, .' .' & ' / ' / 0'* .' E ' H
8 , ' .7+- ' . - * .' & '& ' , , .'<* 6 .'+-+' 0 ,' & '
. '. , . *'+ ' & '< *'+,' & ' / ',+ . .'+ ' & ' 0&'
-'+,' & ',+ * &' , + '+,' & ' - ** ' * 6 ' 0 ,' -+* '
* ,<+ . 0' ? &' J* -'0+ 0' +*' , 0' & *'? &+ ' / * '
.' , *' & ' 6 '<* ,-* 7 .' .' .' / ' & ' .' -' .'
-* 7 .' & .'6 0&' / '. *6 .' / '7+ 8 ?& & *' & ' < *'
+,' & ' / '? '* 7 '+*' +' .' & ' . ' +& '1 * ' +,K'
,+* ' +& '1 * '+,' . + ' .' *' . 6'> *'+,') */ ** '
/ 0' ?, ' 66+ .'/ ' & ' .' 6 '> **' / '& * .'
? '. ,< .'-+ ' .' + .'+,' * 6< ' .' & '+ & *' + 6H
'* F '+'& 7 ' ,? * .' +' & ',+* .' . 6 ' .'
/ 0'+, ' .'. 7 *,' 6 ' - .' / '6 - *' ' & ' * H
6 '&+ ' .' ' & '0* '.++*'4 & * +,'?& -&' ? ' - , '+< '
' , ' ' % ' ('- - '& '" % +' ' + '+,' & 6' -+6< *H
0' & '?& -&'< -< ' / ' .' . 6 '+,' & 0&' * ,+ '
< * ? .' ' & ' , -'+,' & ' 8 , ' .7+- ' 0 ,' & '
, * 6 .'< ,,+ '. , . *' .' & -(' .+ / '+,' & ' 6 '
'1 0 &' .' G - + '+,' & ', .', 6 + .'? &' & ',+*,.' -'
+,' *7 ')+ - ' <<+ 0' & ' 6 '+' / ' * , .' .' - * .'
+'K '6 *' ,+*, .'? &' & ',+*,.'. - * + '+,' & ' 8 ,
.7+- '/ 0' ' 0 &' & *.', ' .' -+ , . * .' / '& '
8 , ' .' & '1, '+,' * 6 ' & '/ ' & *'7+ ' Q' *'
+F +*' +,' & '. ' & ',*0'. '+,' ' , ', .' & ' * - '
+,' & ' / ',+ . .' + ' & ',+*, .' -'+,' * 6 '9K'78'\
$E86 '&* '* 7 ' +'/ '<*+7 ' / '& ' .7+- '<*+ '
. '8 * ' +' ,*' & '-+ - , + '+,' * ,+ ' * .'-+ +? .' & '
. ' ' & '<*+- ' ' & '. ' / 0' & ', -+ .' . '+,' '
, ' ' ' - +-(' .' +*. .' & '< *,+ ',+*6 * ' < '
<+ .'+' .' & ' .' . ' .*' & '- * , - + ',+*6 * '
<<+ .' .' --+*. 0 ' & ' .' / ' .8 . 6 '+,'
& 0&' * ,+ ' / 0' & ' . ' 0 ' - .' & ' .' *' 6 '
? *'& ' ' .7+ - '8< *, *' . .' .. - ', 7 * D', 6+ '
? ,,'; ?, ' - .',+*' <*+7 &0' & '<+ '!+,' & ' / '
. 6 .' +' & '<*+/ + ' : &+' & 7 0'-+6< * .'< *,+ ' '
<* -'+,' & ' ' & 0&')+66 %+ *' .' & ' 1, ' +,'
* 6 '-* 7 .' & '/ ,+*' & '9&+ .'/ '+/ .0 .'+'. <+ '
& ' & '6 0&'& 7 ' ', ' .' 6< ' * 6 , + ',+*; & *' / 0'
' .'-+** ,<+ . 0'? &' J* -' , *' & ', *, ' . '+,' 0 ,'
@'78@ .' ' ** ' *' -+ * *' +' & ' 0&' -'+,' & '
,+ * &' , + '+,' & ' - ** ' * 6 'E ' 8 , ' & 0V'
)+66 , + *' . - * .' ' * 6 ' 7 * ' +' -&'+ '+,' & '
? ,,' . . - .' & '& '?+ .'0* ' +' -&'+ '+,' & 6', '
.' 6< ' * 6 , + ',+*' & *' * G 7 ' * 6 ' +,'-+** ,<+ . 0'
? &' J* -' .' & ', . ' ? ,'' / 0' & * , *' < * '
. . - .' N <* -'+,' & ' 8 , ')+66 %+ *' .' & '
1, '+,' * 6 ' .' / 0' + 6 ' +* ' < *0 .'+,'
< * '-+ - ' G 6 .' .' **+0 ' <+ ' & ' <+ '+,' &

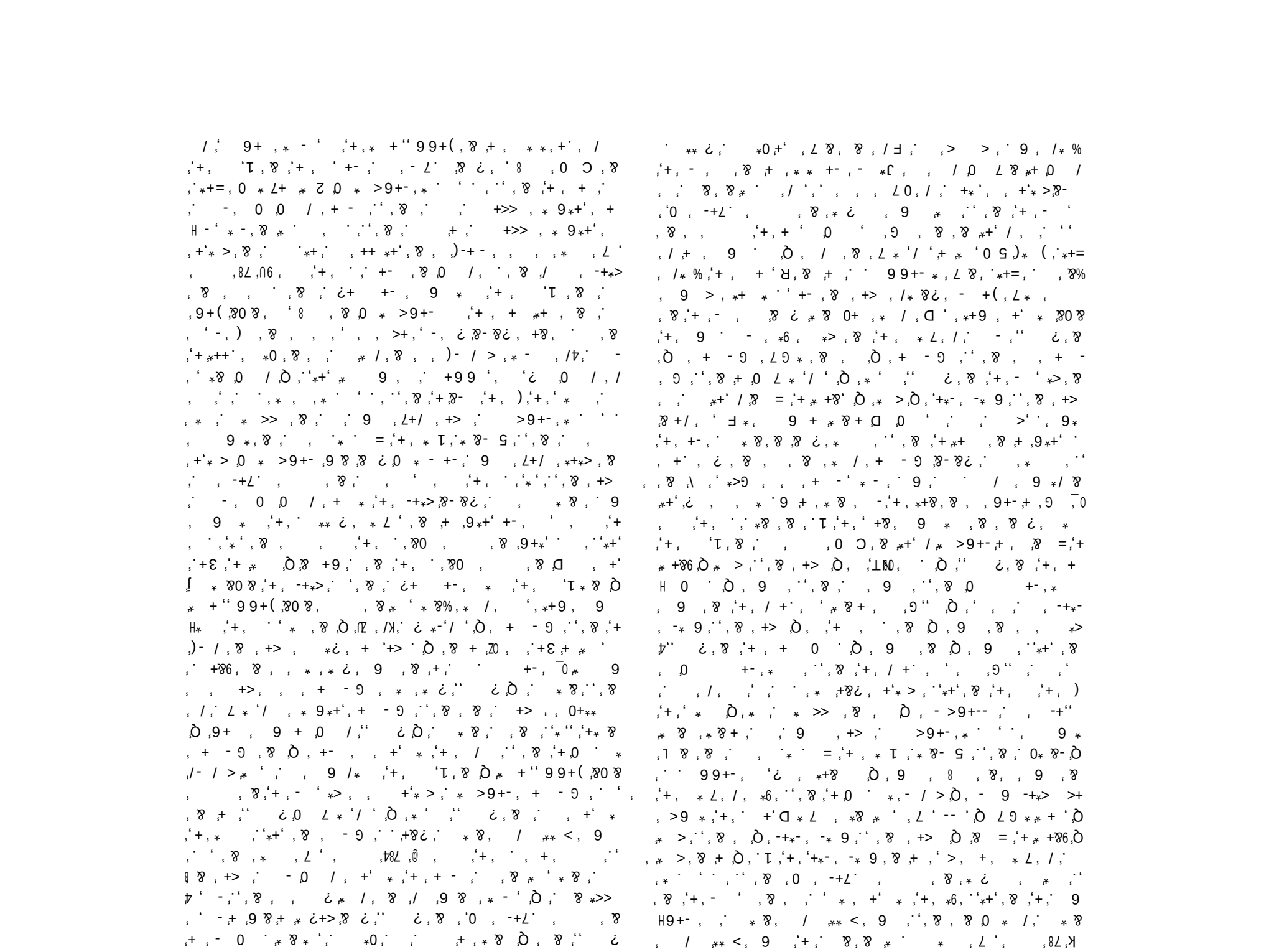
/ ' .' . 6 '+,'& 0&' * ,+ ' . 6 .' +' & '< *, ? * '
<*+/ + ' ' <+ .' ' 6 *' 6 + .' ' & *' + & ' .'
. <+, + ' ' & ' 6 / -* 7 .' / ' & 6' .' & ' * . '
+,' * 6 ' G ' ' <*+- ' 6+*', D '/ * ' %& * , *' '
/ 0' 6+7 .' & ' & ' - '+,',+*, * ' 0' & ' / ++.'
+,' & '. ,- . '+,' & '1 * '+,' ,+* ',*,' 6 ** .0 '? &'
& '& * ,'+,B= . '?&+' & 7 '. , *7 .',+' ? '+,' & ' 8 , '$
.' & '3+7 * 6 ' / '< ' ' & ',+ +? 0' * ' %& ' '
.++6'+,',+*, * ' +' / '<*+ + - .' ' & '<* '<*+- '
0 ,' +& '1 * '+,' ,+* ' & ' +'? ' ,, -'+*' ' & '
$/ ++.'+,' & '-& .* '<*+-* '/ ? G' & ',.'1 * ' .' +<& _'
= . ' & * ,' +,' & ' , '+,'= . ' .' & ' & ' / ' '
G- < + ' ' & '.++6'+,',+*, * 'E ' 8 , ' .' & '1 '
+,' * 6 '. - * .' & ' '.++6'+,',+*, * ' +' / '<*+ ''
+ .' ' & '<* '<*+- ' 0 ,' +& '1 * '+,' ,+* '
,& ' +'? ' ,, -' +*' ' & '/ ++.'+,' & ' -& .* ' <*+-* '
/ ? G' & ',.'K1 * ' .' +<& '= . ' & * ,'+,' & ' , '+,'
= . ' .' & ' & '/ ' G- < + ' ' & '.++6'+,',+*, * '
, *'<*+ + - 0' '?& -&' *+F +*' & ' 8 , ' .7+- '
. , .' & ' & '<*+/ + ' . . - .' 0 ,' & ' .' +& '1 * '
;+,' ,+*' + 6' 1 * '+,' . + ' .' *' . 6'> *' +,'
) */ ** '6 0&'/ '* .' +7 *' .'7+ .' 0 ' ' +' 7 * '+ '
+,' & 6' .'?& -&' / ' &* ' , 7 * '7+ ' / 0' --+*. 0 '
.+ ' .' & 'C 0' 8 , ' &.' & '1, '+,' * 6 '& 7 0'
-+ , . * .' & ',+*, .' / ' .' . 6 ',+*' & 0&' * ,+ '
< *, .' ' & ' , -'+,'E ' 8 , ' .7+- ' 0 ,' & ' &* '
,+* 6 .'< *,+ '. , . *'? &' & '. <+, + '+,' & '? ,_'
?&+' ? *' . . - .'<* , ' .' . <+ 0' ' & ,+*, .' - + '
+,' * ,+ ' . 6 .' +' & '=+*.' .7+- '& '<*+/ + ' '6 '
',+,.' %& ', .' .' & */ ', .'K & ',+*,.' -* 6 '+,' * H
,+ ' ' ' ',+ .'* 7 '7 8' & ' & ' .' +& '1 * '+,'
,+*' +& '1 * '+,' . + ' .', *' . 6'> *' . .'-+** ,'
<+ .'? &' J* -' / '0+ 0' +*' 0' & *'? &+ ' / * '
.' , *' & ' 6 '<* ,-* 7 .' .' 6 .' / ' & ' 0&' -'+,'
& ',+ * &' , + '+,' & '- ** ' * 6 ' ,, - '7 *, .'
.'<*+7 ' 0 ,' & ', . ' +& '1 * '+,' ,+*' +& '1 * '+,'4'
. + ' .' *' . 6'> *'+,') */ ** '& 7 0'< ,' 7 * L'
7+ ' <+ '.7 , 0' & '<*+/ + ' ' +' -&'+,' & 6' .' & * '
,/*' 2 *' +7 * 0 '=+*.' .' & '1 '+,' * 6 '/ ' & '
6+ &' +,' +& '5 -& '. 6<, *' +,' * 6 '. - * 'Q' .H
8 .0 ' & ' .' +& '1 * '+,' ,+* ' +& '1 * '+,' . + ' .'
*' . 6'> *'+,') */ ** ' +'/ ' G - '+' & '. &'. 6 '
' * + * 'Q' +' . *0+ ' & '< '+,' * ,+ 'Q' *' < , '
6 ' <<+ .'/ ' & ' ? '+,' & '* 6 '?& 7 *' & ', '
/ ' <<* & . .' ', -&' 6 '< - ' .' ', -&' 6 *' '& '
8 , & ' <<+ ' .'+*. ' & *' 6 ', 6 ' 6 6+* '
.'&+ + *' +' / ' G -' & *' / ++.' +' / ' .' .' & *'
6 ' +' / ' 7 ', * &'Q' . '+ '+,' & ' /++(' +, *6 '
& ' & *' <+, * ' 6 ' 7 *' & 7 '< - ' +*' / ' / '& * , *'
+' /* ('+*'8+ , ' '&+ + * '+,, - ' '+*' . 0 '?4&' & '
* 6 ' ' 6 ' -+6 0' G- < 0' 7 * & ',*+6' & ' .++6'
+,',+*, * ' ' +' & ' 0' +,' & ' / ++.' +*' - < - 0'
+*' '? ' ,, - 0' & ' <+, * ' & '-& .* ' <*+-* '/ H
? G' & ',.' +& '1 * '+,' ,+*' .' & '. - ,' +< '= . '
& * ,' h,' & ' , '+,'= . ' .' & ',+*, .'< *,+ ',+*, .'
+' & 7 ',+*, .' 6 .' .' ' ' .'K, .* ' & *' .'
& * .0 ' '+,, - ' -(' , . 0 '*+ 6 '<+,, , + '0++. '
+*' 0 *' ?& ,+6 7 *' < * 0' +' & 6' +' + *' +7 * 0 '
;=+*.' +'* 6 '< *< '? &' & ' 8 , ' '<*+< * '?& -&'
? '<*+ + - .',+*' .++6'.' .' & * <+ 'Q' <+ ' ' .', .* '
& '<* 6 ,'& ' 8 , ' .7+- ' ,(.' .' ++(' , * 6

51 9%' +' & ' , -')+ *' +' <*+, - ' & ' 5 / 5
'J* -

%' 1. / *0&' & ' -+ .'. '+,' '9K *8\ ', 7 ' *'
' & ' 66+ . ' / ' .' . 6 ',+*' & 0&' * + '
* .' .'< *, ? .'/ ,+*' & ' 8 , ' .' & '1 '+,' * H
6 '?* ' '= ' .' G< . ' . *' & '& .'+,' & '. <

. * - +*' +,')& - * ' (< *' +,' & ' T * *' ' -+ ,+6* '
+' ' -' .'? ** .' +,' & '=+*. ' .' + & * ' +,' & ' '
*7 ')+ - L' '6 6 *' .' +' & ' ,, -' , *' 6 + .' '
& ' , - '+,' *' 6 ' ? *' & ' 8 , ' .7+- ',+*' & '
E 0& ' * ,' ' & ' 6 *' . *' ?* ' 0 ,' 5 -& *.'
1 * ' +,' = . *. ')+ ' 1 * ' +,' > - ** ' *' : 6'
: - '+,')* 0 ' G . *' -= ' ')+66 , '+,' *0 '
G . *' 5+/ * ,+ ' +,' *+? ' ' +& ' +& , + ' /*+ & *' +'
& '1 * ' +,' . ' 4' G . *' .' /*+ & *' +' & '
1 * ' +,' = . *. ' G? ' +,' 2*-& *. +
 '% +6 0' : - '+,'1 . *, ' 3* & 6 ' + 0 *
+,' ' * ' G . *'%*+ *' /*+ & *' +' & '= *.'+,' +* + '
& ' ')& * 'C *.' /*+ & *' +' & '=+*.' C *.' ' 7 .'
= . ' -* * ' +' & '1 . ' +,' ,+* ')+ + '%&+6 '
> -& ' +6 6 '. 0 .'3 * 5'> -& ')+ + '
) + ' +6 6 '. 0 .' = 7 '3 * ') + ' *'
)& * ') * '+ & *? '. 0 .' 8+*' 3 * ') * '
) < ' .* ?'5 & *,+*.' +6 6 ') < ' ' ' 6 8 * + '
* 0 6 ') < ' ' ') < ' . ,
) < ' 5 &7 ' = 7
9 -'%&* - .' = ?4' 3 +*0 ' (' '= ?
 ' +& 'J+*, , *' = 7 ' -&
6+ ' 1 , 0 ' G '9 ' = 7 ' ' .' +& '
> ' 1 , 0 ' : @' +? ' 1 , 0 ' 5+/ *' G? ' = 7H
 '3 +*0 ' E 6<, ' 1 , 0 ' : 6' 5 6, ' +6 6 ' '
E+.0 '* 0 6 '1 , 0 '= * - ' '* 6 6+ .'+,'
= 7 ' * -(' -&6+ ' +6 6 ' ' & ' -+ '
3 *. ') < ' 5+/ *' +6 *7 ') < ' : k' ' 7 .,+ '
= 74' : k' ' = 74' ' E &* + ' = 74' 6 '8
G? '# 1 , 0 ' 5+4' & * .' 1 , 0 ' G' - *'
1 , 0 ')& * ' + ' = 74' : 6' G? ' = 74' +& '
> ' +6 6 ' '. ' ',, ** '* 0 6 ' 1 , 0 ' : 6'9 ' '
& ', .'* 0 6 ' 1 , 0 ' : < ' = < ' ' & ' ,.'* 0 6 '
= 74' + <&' >*+. ' : 6'Q' 98 0&' & * .' <& ? ' +'
8+*' 3 * ' & * .' : 6' - * ' + ' +' & '. - ,'
 - * '+,' ' ' 5+/ * '1 +-&'+,'
 ' : @' * + ' + ' +' 4' : U' * + ' +6 6 ' 6 &, *'
 ' * 0' ' ' 7 .' '* 68 + .' . '+ ' & '1 * '+,' H
,+* ' G ' I ,/ ' + ' +' I ,/ '6 *-& ' '3 ,0+?
 ' 6 ' 2,? .' +6 6 ')& < ' +' & ' = . ' E ('
) &/ * ' + ' +' ') &/ * ' *+7+,'*+,
9 7 * , ' *' 6 ' + 0+6 * '+,' (6+* ') < ' * -('
3* & 6 ') < '5+/ * ' .' : 6')& * *,,'
= 7 ')+ + ' 5 * ' = 74')+ + (
2 <& ' = 74')+ + ' '+ 0 ' 5+/ *
? * ' 0 ' ' 1 . / *0&' 1 , 0 ' +& ' 0 ' + ' +'
 0 '+,')+6* ' 8+*' +& K'3<*.+ '
E 6 + '+,'C /* -&6+ ') *6 -& '+,'> /*
) < ' 6 ' ** '/*+ & *' +' &+< '= 74' 6 ' ** '
) < ' +& '= 7 0, + ') <4'= 74' +& ')* 0& + ') < 6'+,'
) *+ .') < '5+/ * ' ' / *' G'% '9(<< *' '= &'
- .' : & ' G . *' 9*7 0'+,' < +
) < ' : D 6' *')+ + ' : -&+<
 *' +& ' = '+,' & '9 (' .' ' 0 ,' & ' << * .'
 * .' * ,' +,' ('+,' +,' & ' ,+*, . ' < *,+ ' ?&+'
* ' . .' ,' ' / *'8%& ' & -(' -+< '?& *+,' ' 1 0 ,&'
<*+. - .' ' 6 *' , *' ' < - , .' 6 (&' 6 + ' %& '
?& * '' + ? &, . 0' / ' & ' ? 'K .' - `' +,' * 6 '
 .' -+ , ' <* - F ' +,' & ' C 0.+6 ' & ' -* 6 '+,'
* ,+ ' .' , 6 8 , ' / ' < & / '? &',+*, * '+,' , '
 .' Q' 0++. ' .' / ' & ' &* .' - '+,' & ', *,' * 6 '+,'
C 0' 6 ' & ', *,' & ' + ' * / ' +< ' 0 ,' & 'C 0 '
< * + ' . *' & ' < ' ,'+,+*, * ' .' / ' & ' &* &' -'
+,' & ' -+ .' * 6 '+,'C 0' 6 ' & ' -+ .' 9 ' ' '
& ' + ' * / ' 0,' & 'C 0 ' < * + ' +*' &+* ' .'?&+ +'
* / ' +'/ ' < & .' , *' & 'F ' .'F '+,' & ', .'
* / + ' .' / ' & ' -+ .' - '+,' & ' -+ .' - - ' ., & ',*,'
 * 6 '+,'C 0')& * ' & ' -+ .' 9 ' ', ' .' . - * .'
& ' ,' ' < *,+ ' & ' < + ' -+ * ? ' +*' < .' +' . <* 7

. <+,' +*', ,< .' & 'C 0',*+6' & ' '&+ + *' .'C 0 '
 6 ' +,' & ' +*' ' + & *' +,'+ *' .+6 + ' +*' +', ,< .' '
,*+6' & ' G * , ' +,'+ *' 3+7 * 6 ' +*', ' 7 '? *' +*' ('
<' *6 ' 0 ,' ' +*' & ' ' * 0 * '+*' + & * ' +' 7 . '
 '+,'+ *' .+6 + '& ' & ' / ' .8 .0 .' ' * + *' .'< ,& '
.' ' ' & '- , '+,' & 0&' * ,+ ' .' / ' & ', -+ .' -'+,' & '
,*,' , + '+,'+ *'- * ' * 6 '9 ' '. - * .' .' / ' & 0&' $
* ,+ ' ' '+,' & ' /8 - ' +,' & ' C 0.+6 ' / ' ?* 8 0 '
< (0' +*' '+ & *' 6 *' +,' ? ' +' . +? ' F ** ' +*
$ 6< 0 '+ *'*+ '<+? *' .' &+* '+*' * 0& ' .' ' +' & '
)*+ ' .' / ' ' 0& ' -'+,' & ',+ * &' , + '+,'+ *' - ** '
 * 6 '9 ' ', ' .' +*. .' & ' + '+,'+ *' /8 - '
? & ' & 4'C 0.+6 ' ? &+ ' G<* , ' 7 ' ,*+6' ' +*'4+ *'
 7 ')+ - '< 6 ' +'0+ ' +' & 'C 0.+6 '+,' * - '+*'
+ & *' +,' & '.+6 + ', /8 - ' +' & 'J* -&'C 0' , *' & ', *,'
+,' 8 & ' G ' -+6 '9U'78K'Q'& ' &* ' * '+*' / 0'
 * . ' ' .'C 0.+6 '+,'J* - '+*' -+ * ',+*,.'<* H
 6 ' +', '+*' / . ' & * ' , *' & ', *,' +,' 0 , ' & ' .'
 ' 9U' 78@ ' & ' * '? &+ ' G<* , ' 7 ',*+6' & '
 '+*' & ' * 7 ')+ - ' . *' & '< '+,' * ,+ ' .' / '
& ', G ' &' -'+,' & ', G ' * '+,'C 0' 6 ' & 'J , &'
9 ' ' <<+ .' -+ - . .' .' . - * .' <4 & ' *' 6 ' / ',+*'
, .',+*' * ,+ '-+6 6 .' / '& ' <* . - ,,+*' -+ ,+*6' +' & '
-+6 6+ ' ? ' 0++.' F 'Q' * ,+ ' I 7 * & ' ' +,'7 * '
& ' & ' .' 5 -& *.' 1 * '+,'= . *. ' .' & '& '* 6 '
< *,+ ' /+7 ' 6 .' -+6< .' <+ ' .' & *' ,,+- ' .'
 --+6< - '& 7 44<* 6 . +' -+6 6 ' .' * '0 '+,' & ' .'
-* 6 '+,' * ,+ 'Q' 8 , ' ', *' '& ' 8 , 'C 0'
: 6' / 0' 0 0 .' ' '8 , ' .' - , * '? *' 0, ' & '
J* -&'C 0',+*' & '6 - '+,' & '* 0+ 'Q' / * '+,'$
& ' ,.' '< +< ' & '& ',+* 6 .' < *,+ ' / 0' 7 '$'
 -+ 6 'Q' /+* ' - '+,' & '* & '-+ * * '+' & *' '
* ' . ' .' .0 - ' . .' ' & '6+ & '+,' '
 0 , ' .'* 6 '6+ & '+,' & ' 6d \'78' 0& ' ' .
<+ ' & ', *,' -+ .' &* .'+*' '+*' + & *'+,' & '. '+,' & K'
 6+ & '+,' ' J /* ' *-&'<*' '2*' + & *' +,' & ' 6+ & '
+,' & ' * '9U' 78 '!' ' '+ ^' + +' ?+' + +' % '
 ',+ *' .' * 'Q' J /* ' @' 78@ ', 7 ' * '$6+ \'
* ,+ / ' .' . , '* , ' !' 8+ ' ' *6 'Q'+< * '
& + '?4 & 'J* -&'C 0' .' & ' ,+*- 'Q' *6 ' 0 ,' & '
 'C 0' : 6'Q' & '3+7 * 6 'Q' <' 7 '-+ * '. .'
 ' & 'J* -&'C 0'Q' & ' ,+*- ' +' 7 . ' .+6 + 'Q' +'
F ** 'Q' 6< 0 ' N*+ '<+? *' Q' &+* ' !' % ' !' '
+' & ')*+ ' . .' , 0& '* , , 'Q' +<<+, ' 0N ,+*- '? ** 0' 0, ' &
$ J* -&'C 0' 'J . * ' .' ?& , '< * - * ' ' = . '
 + (*(' ' .' *' +' + 'I 6 * 'Q-' . .' .' / ' , , '
(<' -+** ,<+ . - '? &' 0 7 ' & <' * . .' .' -+ , ' +' &
 ' ' 6 'Q' & ' 6 '+,' & ' *+ , '* 0 + ' .' & *'
 7 '-+ * '+*' , '? &' +' Q' & 7 '* 6 .' ? & ' & ' .'
C 0.+6 '+,' J* - ' .' .+6 + ' /8 - ' +' & 'J* -&'C 0'
 - ' & '. ' < - , .' ' & ' ,+*, .' - '+,' * 6 '< , ' '
 '@' 78@ ' &* ' &+* *' +*' + 0 *' +*' +' & '7 * '. '
? &+ ' 7 ',*+6' & ' 'C 0' : 6' +*' & ' * 7 ')+ H
 - ' &*+?' .+ 0' .' -+6 6 0' ?& *+,' +*' +*' + & *' +,' & '
. . ' /+7 ' ,< - , .' & ' & ' ,/* 6 .' < *,+ ' .' ('+,'
 & 7 '-+6 6 .' Q' * '0 8*' +,' & ' -* 6 ' +,'% %' & '
* / + ' ! ' 6 8 , ' .' * '& ' *' ! ' /& ' < +,' I % %'
/ 0',+ .' / ' & ' ' % '1, '+,' * ' & '+ 0& ' '
/ '< & .'? &', &#(# ' ' ,' . 'Q' 0++. ' +' & ' +*'
+,' + & * ' +' -+6 6 '% ' (' & * , *' .' & * ,+*' & ' .'
& '. , . * ' /+7 ' 6 .' Q' & *' , +- 'Q' --+6 < - 'Q'
 & ' << * .' * ' .' * ,'+,' ('+,' '+,' & ',+*, .' < *H
,+ '?&+' * '. .' ,' ' / ' +' & 7 ' -+6 < * .' / ,+*' & '
.' & ' 1, '+,' * 6 '? & ' % ' * 6 '&+ , ' +,'
1 .' <+ ' & ' &* .' . '+,' ' & ' G' +?' / 0+ '9 ' & '
&+ *' +,'- , ' +' & 7 ' & *.' .' ' & ' , .'<*+- '.++6' -,'
, - '+,',+*, * '+*.+ * ' .' .' . . - .' 8R &- * , - H
 + ' +' & 6 'Q' +' & ' ' . ,'+,'('+,', -&' ' * ' . .'
 & '?& & *' & ' -+6 < * .'+*' * +'&Q' ' .' & ' 1, '+,



& ' 8 , ' & ',+* .'<*+- '+,' * ,+ ' '/ ,+*' & ' *H
6 ' 0 ,' & ',+6 6 .' < *,+ '- .'Q'- .'< ',+*'
& *'-+** ,<+ . -'? &'J* -'?&+' *' +',+*, .'/ ' & '
* 6 ' +'/ '. - % .'/ ' & 6' <+ ' & ' 68 + .'< *, ? .'
/ ,+*' & ' * 6 '?& -&' '& * / '. - * .'+'/ ' '7 .' '
',' & ',+* .'< *,+ ' ' (' '+,' & 6'& .'/ ', 66+ .'
/ ,+*' & ' , - ',+*,.' ' & ',*,' , -' .'& */ ' &+'
*S4 ' .' 6<+? *' & ' =+*.' +,' , - *' +'<*+- .' +',+*'
, *' 0 ,' & 6',+*' & '-* 6 '+,' * ,+ ' / .' ' & '
,.' 66+ .' + ? &, . 0' & ' /' /, '? &' <+? *' +'
& 6' +',, '? ** .',+*'- + 'Z,' ? ,Z 0 ,' '+,' & '
.'< *,+ ' .'?& * <+ ' .' <+ ' 'Q', .*' & '<* 6 ,,'
& ' 8 , ' .7+- ' (.' '* F * .' , * 6 8

)%' ', 7+ *'+,'N', .') '+,'1.' ' *-(' +* *, ..'+,'
)+6 , + ' .' + & *' .8 < ' & * +*' / '+/ .0 .' +'. ,<+ '
, -&',+ '? ' .',<* 0' ' ,& ' / ' - ,, *',+*' <*+'
7 . 0'? *' +', ', .') '* .'? &' & '< + '07 ' '/ '
<', .' *-(' +* *, ..'+,') +* , + ' .''+& *' .8 - '
& * +*' / '? '+,' , *' .', *',+6 '. / ' * -+66 . .'
+' <' =+*.') *6 -& ' ' *-&/ .' ** '+,'> -(/ **+ '
.' ' G' >* -'+,' >*++6& ' +' . 7+ *' +' 0* '. '
6 *' .'* <+*'+' . ' G

I1' +7 * *' /*+ 0&' ' & ' ' -' / '< ',+*'. 7 . 0'
-+66 ' .', *'?& '6 *'* 6 .'+'<') +66 ',+*'
- * '+,'. 'C 0.+6

MO I1'+7 * *' & ' & * ' 6 ' ' ' -'+,' * < '
/*+ 0&' '/ ' ')+66 '6 '=+*.')+66 , + *'& '
3* -' .' &' &+ /5' 1, '+,' * 6 '6 ' & ('
, '+' <<+

%E %' ' &'-+66+ 4+*'-+66+ '6 * '? & ' &'C 0'
.+6 ' & ' / '. 7 . .' / ' &' . F*6 + ' +,' &* ' , -'
<,' -'? . ' &'9& * '?& * +,' & ' . 7 , + ' '-* 7 .' ' & B
. , * '+,' '& 7 0' * ,' & * ' + ? &, . 0' +,' '
+<<+, + ' & ' 6 '/ ' 6 . ' / ' &' < * '+,' & ' & * +* '
& 7 0' * ,' ' &'-+66+ '+*' & '# '+*',+6 '+,' & 6'
6 '/ ' 6 +*' G- < 0' ? ' &' -0 6+ '+*' -+66+ '
6 , '/ + 0 0' +'/* 0&'*+ '+*'?& * ' & '& 7 ' *,

B 1.' 44 8
%E195' '&0&')+66 , + *'Q' & '1 '+,' * '& 7 '
0'-+ . * .' & ' +7 * *' & '* 6 ' +' & ')+66 ',+*K
- * '+,' &' C 0.+6 ' +' /* 0' ' -'+,' * '
& * <+ '

I I I ' =1' '$
9'é 'é ''^ *

)%' /*+ 0&' ',*+6' & ', .')+66 ' ' &' '* .'
7+ .' .' <<*+7

)%'* 0 0' &'F +* 6'+,' & ')+66 , + ',+*' < + '
+,'C *(' .' + '+,' .'* .'7+ .' .' <<*+7 '
$ $
)%'/*+ 0& ',*+6' & ')+66 '+,' * .' 'B ' & *'
6 , -+*'* .' .'+*. * .' +' '+' & ' /

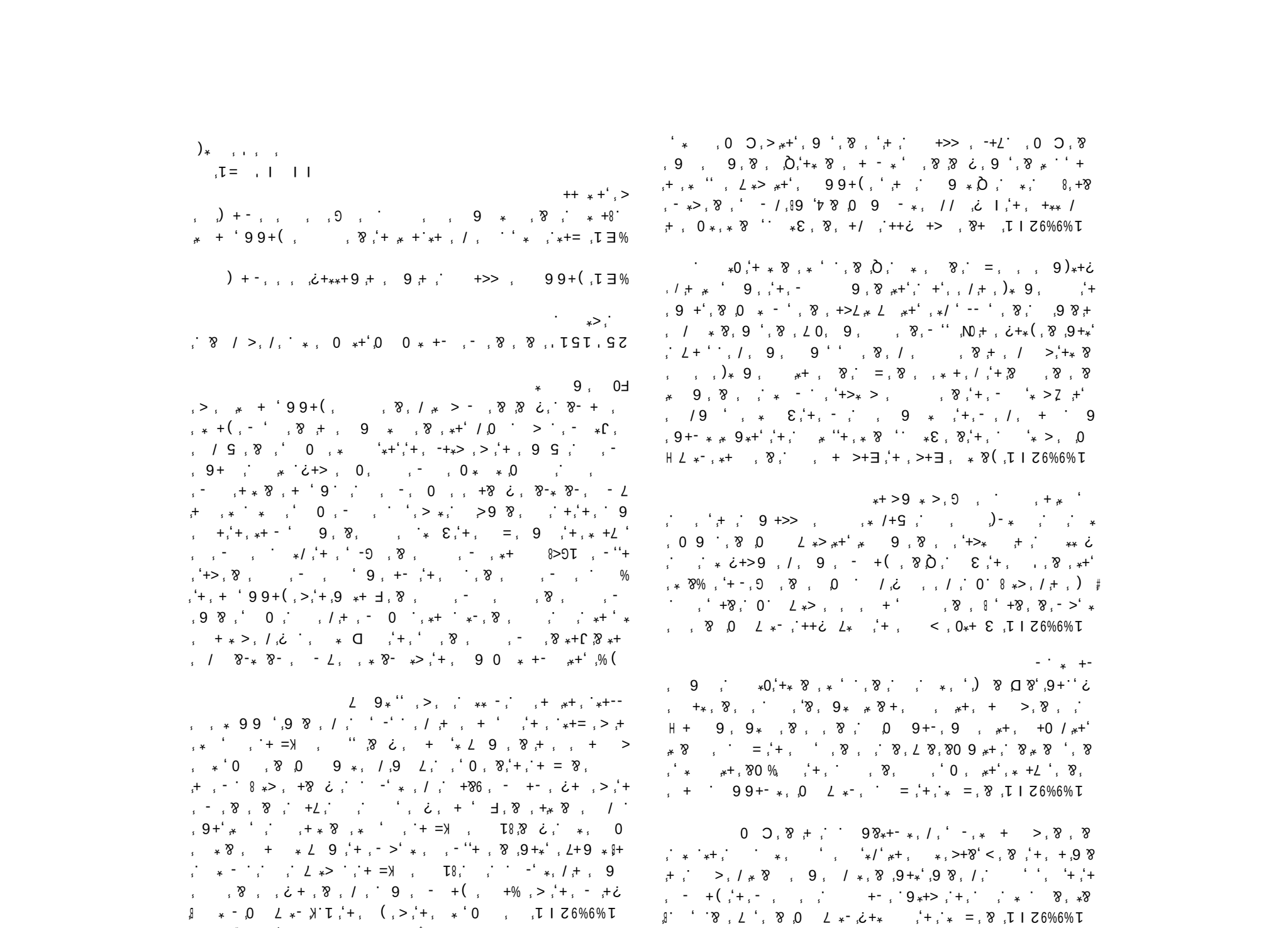
)%'/*+ 0&' ',*+6' & ', .')+66 ',+*' 6 , -+*'+,'
',+ <' 6 ', 0 *' .', *-&' ', 7+ *' +,' 5+/ *' '+?0
'* .' .'+*. * .' +' '+' & ' /

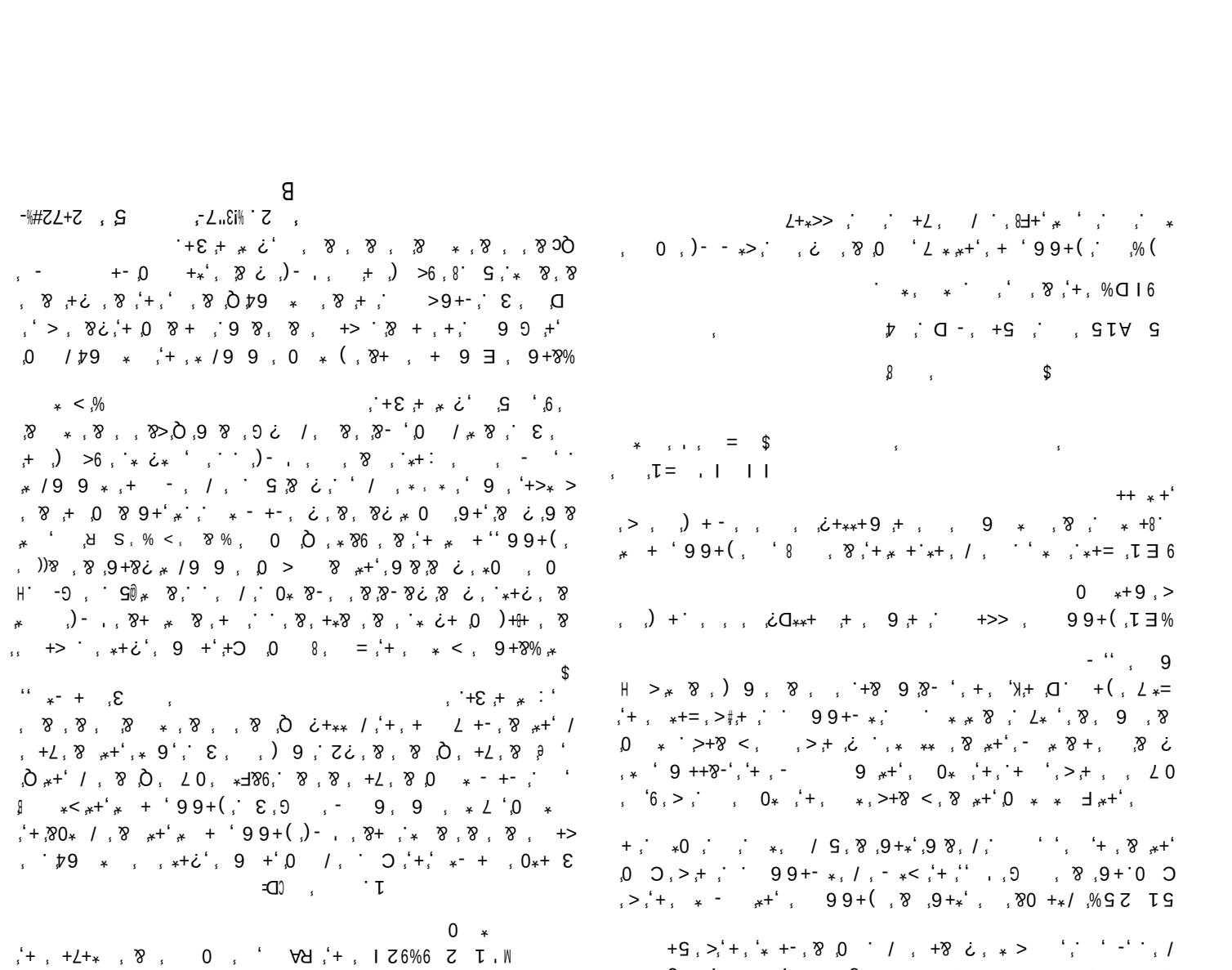
)%'/*+ 0&' ',*+6' & ', .')+66 ' ', 7+ *' +,' 6 '
= D'+,' 3 *. ',+*' '6 , -+*'+,'+ '6 .'+,' '& 6<'
Q'* <', . N .' "6 , -+*',+*' .* , 0'+,'& *' .'* // '
9('* .'7+ .' .' <<*+7

)%'/*+ 0&' &',*+6' %', .')+66 ' & ' D -+ '6 '
!' - 6*)(' G<+* .'< '+ ' ' -+ ', 0'-+ ,+*6' +'< '
/++(',' ' D 8*6 '-+6 0'* .'7+ .' .' <<*+7

=+*.' .7+- ' .' ' 6 '20 7 ' <<+ .' +'* 7 , ' & '
5 , - + '+'& '<* , .' ' & ' , + ','+,' * 6 '
c
)%' G< +*'+,'<' -'+,' * 6 '! /*+ 0&' ',*+6' & '
)+66 '+,' * .' ' & ' G- ,'+,'/* . '*0 .'7+ .' ' '
<<*+7

)A





)%' ', 7+ * '+,' 1+/ *' '+?0 ',+*' 6 , - +* '+,',+ <' , 0 *' .' 6 '?+*(' 0 '* .'7+ .' .' <<*+7

)%'. ,-& *0 0'< 0'/ '/*++6'+*' 8 < *' 0*+? 0'+' , . '& ' *' +' ', '* .'7+ .' .' <<*+7

)%',+*' 7 '+,' ' &+ .' 6 ' * ' +'<' G' , + '+,' * 6 '* .' .' , *'. / ' .' 6 .6 ' & *+ '7+ .' .' <<*+7

)%' ', 7+ * '+,')& * 'E+<'+,'E+< + 6 ' -' .')+6' 6 , + ',+*' * 7 , 0' &' ? ' 8 - 4'-+ - * 0' d&')& *-&' -' ' &' G .' .' . . + L' G- , ' -',+*' -+ ' +? + '+,' ?+'< '+' &'< '+,' ' ' *-&' ' .' &* '6+ &'-, ', *. *' & '?& ' ' 0* .'/ ' &',+*6 *' -' -' ', 7+ * '+,' ' 6 ' ? *' & ' 8 , ' .7+- ',+*' / * ' +'< *-& , ' &' ? ,' 0*+ .'& G' &' &+ ,' .' &' I+* &'=+-&' -' ', 7+ * '+,'<' < '+,' * ' -' ', 7+ * '+,' <' +? '+,' / *. ' -',+*' * 0' &' -('+,'<' + ' ' +' '-+ - + ' ' -' ', 7+ * '+,'<' +? '+,' 9*7 ' -'. ,H -& *0 0'< 0'/ '+*' /*++6'Q-' ', . '& ' -' ' &' G-, '+,' J ** +, ' ' + -& .'? &' &' - < *' / ' &' 8 , ')+66, + *' '<' , '6 *'

%E1')+66 '<<+ .'+'6 '+'6+**+?' ' ' '-+ (

%E1' =+*.' * , . ' / '+*. *'+,' &' 8 , ')+66, + *' .8+ * .' &' * 6 ' ' +' 6+**+?' ' ' '-+ (' <' <' ,+* ++

I I I ' =1' ' 9' ' ' ' *

' 8

',2%5' "!!,'/2%!-5' A' @

' "'6'31-'!263' -5-+873'+-25

%E1' -' .'+,,*'+'& ' 8 , 2,' ' . . + L' 6<+ + +' - * ' ,+* 0 '0++.' N<+* .'/*+ 0&' ' 0 ',*+6' &')+66 '+,'* . '* .'7+ .' .' <<*+7

)%',+*' * - 0' '< / -'/ ('? &' ', <* + '07 ' '/'<' 0, * '+,'1.K' .'+&*'/ *0&' 0 ,' '* .' .' , *' . / ' .' 6 .6 '+' &' .' -' .'&'F +' .' <<*+7'+*' +' .'- ** .' '&' ,,*6 7 '

)%' ', 7+* '+,' . D' .'&' *'+,'% ES '* .'7+ .'Q' <<*+7

)%' '&' - *'+,'&'E 0& .' 0 '* . 7+ .' .' <<*+7

)%',+*' . 7 . 0'+,'-+66 ' G- < 0'-+66 '/ + 0' 0 +'& C 0' .'/ *0& '*+ '* .'7+ .' .' <<*+7

1%9%92 I 1'1 * ' * & ')+ .0'+,' / *. '-* 7 0' <'7 - - '+,'- * ')& *-& '?& *+,'&'1 * ' * & '? ' < *+'* .' .'&' . *' & *+,'0* .'? &' &' / *. '+,' &' - '< ' ', 7+* '+,' &' 6 , *' +' -+ ' ' &' G' , + '+,' * 4' .'&',+*6 *' -'',+*' - * '7 - - ' '# , 7+* '+,' &' C 0')+ .0'0* .' ' &' , + '+,' * ;!1 (? '* *- .' ' &' 88' , + '+,' * 4

1%9%92 I 1' K'%&+6 ' ? *'+,'C *(, .', .' .'&' '- , ',+*' < * + '+,'& ' +, '* -+66 . .'+' &'C 0

51 25%' /*+ 0&' ',*+6' &')+66 ',+*' <* 7 ' ,, *' ' , 7+* '+,' *' #)+ ') 6</ '+,' / * *-& ' ' &'+, ' .'/ '& 6',*+6' &'* / '* .' .'& '- , '* -+66 . .' +' &'C 0

51 25%' /*+ 0&' ',*+6' &')+66 ',+*' <* 7 ' ,, *' ' , 7+* '+,' &')& .* '+,' &',*,' .' -+ .' 6 0'+,' *' .* ?' ' -(' * .' .' 0* .'+' & '& *'-, '/'* -+66 . .'+' &'C 0

1 S / &' ' - ' .'& *' + '& *'-, ' (? '* -+66 . .' +' &'C 0

4 1%9%92 I 1' K\ 3 < '* .' .'& *'-, '* -+66 . .' ' &'C 0'

1%9%92 I 1' .'-, '+,') <,' : *'=+-(& *'+,'C *(+ '* -+66 . .'+' & C 0',+*' &'* < * + '+,8 '+, ' $

$i

%E1'-, ' '&' -'+,' K' 6 ' ' '0 ,' 6 'E ' +,') ** / *' * 6 .'+' &'=+*. '+,' , + ' +' /'/ '& 6' . ,-, , .

1%9%92 I 1' 6 '> '* .' .' '< * + '<*+ - + *' 0* .'+'& 6' .'& '-, '* -+66 . .'+' &'C 0',+*' < H 6 '+,'&'. /' .' +'K &'=+*. '+,'%& , * ' +' .7 -'&64 ,+*' & ' -, *' / -

1%9%92 I' 6 ')* , *.' +,' + ?& ' 0 ,' K'%&+6 C .'* .' .'* 6 .'+'&'=+*. '+,' , + @

1%9%92 I' : k')+-&* '+,'C 6 **+ +-('-* 7 0'* < * ' + '+, & 8 +, ' .'/ '& 6',*+6' &'* / '* .' .' & '-, '* -+66 . .'+' &'C 0

'%E1'-, '&'= *.'+,'3 (. ' 0 ,' ' . 6'> *',+*' * . - 0' ' -'2,'.8 6 * 6 .'+'&' ' '- $ ' ', 7+* '+,'&' + '+,' ' *'* .'7+ .' .' <<*+7

)%' ', 7+* '+,'&' < '+,') *+,'* .'7+ .' .' <<*+7

%E1'- '/ G' ' G'E 0 'Q' +&')D . *'+,')* 0' ,+*&'* 6 .'+'&'C 0' .7+- ' .' + - +*' +'/'<*+, - ' /'& 6'/ ,+*' &' .0'2*. *' + ? & . 0'+,'&' - ' +,')+ - ' ' &'. 7 * -

MODI%2'&'3* -'& ' '& 0&')+66, + *' .'& 4 1 0&'&+ + * / '&'1 '+,' * 6 ' %&'< + ' +,' +& ')' . *'+,')* 0,+*&' ' E 6/ '& ? &' 8 %E %'+ ' ' G . *'E 00 '& 7 0' &,'6 ' *' < '6+ '- 6 + ,'<*+ * - .''<*+- ' 0 ,'6'/ ,+*' &' 1 0&'&+ + * / '&'=+*.'+,'&' %& , * ' .'1G-& F *' . *' <*0 *? '+,' * 7 , 0' 6 ' --+6< ' * .' .8 .'/ ' & *'=+< '&'& &',' 6+ '6 -+ , '+,, * .' ' /(& ' '&' * 6 '. ,8** 0' &' &'<*+- , '* '%'%& , * ' ?& -&'? '* < .'+''< * +.' '6 ', 7+ * '6 0&'/'/'& *' * 7 ? .'? &+ ' '+ & *' . , 0 ' & ' +'6 ('&'<*+- , ' 0 + ' .'& */' +'. ' .'<+ <+ '&'< 6 '+,'?& ' '8 , '* 0' +'6'/'&'%& , * ',+*' 6+ '8 ' .'+ *' '+ '- , ' ' ', ,, - ' , * - .'+'&'=+*. '+,'%& , * ' . * 0'&'. < . -'+,'&'<*+- '/ ,+*' & *'=+< 9' '&*,+*' & 6/ ' -* 7 .' .' G< , .',*+6' & ' 8 , -'+,'&' &0&' .'&+ + * / ')+ *'& ' + '? ' +*. ' 'E 00 ' +' , '/ ,+*' &')+66 ,+*' <* 7 ' ,, * ' .'/* 0' &'<*+- ' +' '< * +.' & ' ' 6 '/'* <+* .'+' + *'=+<' '+*. *' +' . *6 ' + +*'+& *?,'+'. - *'& ',' '/' +' + -' & ' , + ' . *6 .'/' & '&+ + * / '8 . - +*' +

9%!!2!!"9 31- %#13 1"7"8+2/!- "+5,"6 1-268+%- 275
& ^41-]8-+ 3"" :+"4--5 275 5-3-+ . %7- 31-+-%7 244"+5%7#@
32@$863%4- G J G "E 2!!275-+a

1 . 4K
E9 8 , E 0&)+6 6 ,, .& * Q & 1, +, * 6
& 7 0& *. & ? & < + . + * 6 & - - 4/ G
G E 00 Q & < + * +/ / <*+, - / & 8 , .7+- Q + - +* / ,+* & +*. * * 8 . - +* -+6< ? &<+? * +/ & 8 . - * +- + , . * **+* 6 / & --+6< ?& *+ & < + * - +,) + , <*+- . Q +/ . *6 & * & ,& , . 8 , . & & - , / . -8 ,, ., 6 6 * 2+S0

11%9%92 I1 3 +*0 > +, * ?++. ? & , * ,+* 4N5+/ * . * -(* . . , * +6 / ? < +/ & 7+ 0* & . * +,& < + +* + . - ** . & , *6 7

1%9%92 I : K >+ 0* .Q& , * -+6 6 . +/ & C 0

1%9%92 I C *. +,)+?/ * . .& - , * -+6 6 . +/ & =+*. +,%& *,

$ 1%9%92 I & = *. +,' 0 , * 6 ' -(* .

%E1 - , * + 0* 0 & = .)* 0 & 'Q +* + & 0 , 6 5+-& .+,9 * & / ./ + -+ - . $

)% G . 0 & - < & , + +, * 6 , H 7+* +,,+*, .< *,+ + <* + *-+6 6 . . &- .+* . * +& * 0 * * / & +<<* , + +,& 6 * .+,4

%E1 = *. +,)+68, + +*. * . +. <+ & <* 0 . ? ? &/ & -+ 7 0*+ . /+ & 6 +/ & + +,1. & < 0 E / * 0 & *,+* 8,/ 0 ? , +/ & 6/ +6 (, +,& <* 7 .0 +* + & 9& 5 & (,

1%9%92 I1 & = *. +,= 0 + -* 7 0 < * + L<*+ - + & , +,& -(+,& / & =+*. +,, + +/ +& : ,+ * . . & . * & *+,0* .

1%9%92 I1 : U > -* 0 - * 7 - < . ,+* /00 0 >* .0 + & ? *+,> *7 * . . & . , * . *+,0* . +/ & G , + +,* 6

51 25%/*+ 0& ,*+6 & =+6 6 ,+* & - * +,& C 0.+6 < . +/ &)& *-&+,J+* *+, + +,& * +,& > &+<* -(+,1+, * .Q* -+6 6 . +/ & C 0

f 51 25% /*+ 0& ,+6 &)+6 6 ,+*<* 7 ,, * # , 7+* +,& <+ ?++. * . <<*+7 . * -+6 6 . +/ & C 0 ? &/ & F , - + -+ . / & . 7 * -

51 25% ,*+6 & .)+6 6 , 7+* +, @ =D ? * & <*/7 0 +,& B +* +,? * * . . <H <*+7 . -* & *+*,0 7

1%9%92 I1 6) ** * *+7 +,1. * . . & , 5 -+6 6 . +/ & + +,1. . 0& +,& =+*. +,* 7)+ -

)% . ,-& *0 0 & 6 (0 +,5 6 ,+* 7 0 G- < ,+* G<+* * ./ 7+ . . <<*+7

+-43%7# 31- " . / . 2S-+,: 2 . 2786243"+0 +-25 D 2: :+"Q-7

)% , 7+* +,& G J * ,+* & * +,9 0* 7 0 0 7 0 & 6 & <* 7 .0 +,6 , - +* * . . <<*+7

)% & 0 * . *+ . . <<*+7

)% /*+ 0& ,*+6 &)+6 6 +,%* . ,+* * - 0 ?, = &8* .7+ . . <<*+7

)% /*+ 0& ,*+6 &)+6 6 ,+* & - * +,& & C 0.+6 G - +* .6+7 / * .7+ .Q <<*+7

2!!"9%7# 31-25 . %7%,3+23"+,"6 31-4" . . "7#""5,"6 /8+#1-,G D "31-+%74"+:"+23%"7-,3"" :83 %7 . "7-0 3"" 31- ,3"4S "6 0C "::%@ :270 "6 6"+-%#7 3+25- +-25 Q"3-5 275 2: :+"Q-7

)% 5 , 0 & - +, * 4 . - +,* 7)+ - ,+*, 6 - +,& <++* * .7+ . . <<*+7
$
2R1 ' & & <*+- +, * ,+ & C 0 .7+- - 0 , & 1 * +,>*+ . / & -+ . & G , + / , * 4 . 0* . +
"
%E1 6 - * . &+ (< * * -+6 6 . +/ & =+*. / , %& 0 * ,+* & * G * +*. * . - & , + +, *

2 1 ?, * ? (6 *- 0* . , 7+* +, 7 H * L & * +* ./ *0&

5 %9J9) %92 I1 , 7+* +, * +& E * .7+ . . <<*+7

1R15 == + & * 5 , - + , 7+* +,<* 7 < * + Q 9 -+*<+* + +,& * * 0& . .<* 7 .0 < -+ *, . <*+ , + * . 0 , +6 +,& 6

) % . ,, * & 8 , +, . . + L 96<+ + + - * ,+** 0 -+6 6+. 6<+* . - & = 7 - K , 7+* +,5+/ * >+ 0 - , 7+* +,& +& . * .) <4 S * - -+ * 0 0 & G<+* + +,7 - - , 7+* +,& = & * 6 , - +* - & (* +,1. - & / * 0 -+ 0 - , 7+* +,& & * +, S +, . - & , - * & E 0& . - ,+* * - 0 < /&- / (- , 7+* +,& + +,' * - , 7+* +,& + +,) *+, - ,+* . 7 . 0 -+6 6 - . ,-& *0 0 7 0 +,5 6 - 8 - 0 &)+6 / 6 (* 6 , - +* - * - 0 & * +,9 0* 7 0 6 , - +* - & 0 - G - +* .6+7 / - +? 0 . 6 , * +* +,& -+6 6+ 0++. +,/ *0& +, .7 * & * +-(+* < * & *+,& & -+6< +,,+* 0 * . - & <++* D + -& .? &/ & - < * / & 8 ,)+6 6 , + * & 6 *

2!Q"" 8+- 8$8,!%/-3 +-25 Q"3-5 2: :+"Q-7 275 3"841-5 9%31 31- 4- :3-+

31- "+5 +-6%5-73 /0 "+5-+ "6 1%,' 2$-63%-,' 1%#1 " . W . %6,%"7-+ 25$"8+7-5 31- 2+!%2 . -73 3"" 7%--3 23 5%7/8+#1 31- P,-Q-731 520 "6 "Q- . /-+ 7%^3

I I I ' =1 9 ' ' '

< ' %&($ % &$* (%(&((* 0

$ % &$* (%/ 0* & %$ 1*)2*00* +3'&!

0+& U%&+* ') 4J' &4 + , , , , *,

4+)* **+ 4& +)* .+ +*.

8 :

$ $

%& -D 0+,& 5+ & 1 * +, + & * .<*+ .
,+* & <* - . - 0 D^& 1 * ?&+N? * - .K/ H
,+* & 6

J%15- 0&5+ & ' (+,E 6 + 6 6 + &
1 1+66,, + + & 6 ,+** <* 0 &C 0
8 & ', * , F +,& 0 * 6 .<+(
&+* + & ,, - ,+ +? 0%& & 8 & ./ <
+ .& .) +66, + + * <* & *+ 1< * + &
, * , + Q- ?& -& & +(+8* .0 ? &+ -?, *
/+7 ?& & . , *7 .< - & 6 ?& & 6H
<+* - .-+ . + +,& 8 ,, * *, & C 0.+6
* F * .& 0* * * ,*+6 & 8 .& 0*
, &, , . / ' &)+& , + * ?& -& ? * + & *
? - , * 8 + & 0& + .& / & &+*
.7 * 6 & & . / 8 < * & * 6 0&
0 7 & 6 +6 . ,, - . -& *0 0 & 7 * .
- 6/ + + < * + & & & &-& * * -& ? &
S & & . ,+* & 8 , *7 - .& 0++.+,& -+ *
& & * ,+ 7 . + 0 7 * . .-& *, +/ . - +
& 8 -+66 . Q + +6 + & 0 & <+? * ?& -&
6 0& .7 - & 8 &+ +* . * . -+ * /
+ & < - . - * +,& & I +
%& & & . * - 7 .9 , * - + ,*+6& 8 , + 0 7
& --6, + - ,+* * 0 & 0+,1 +

+ 4+)* **+ 4& +)* .+ +*.

8 :

$ $

%& -D 0+,& 5+ & 1 * +, + & * .<*+ .
,+* & <* - . - 0 D^& 1 * ?&+N? * - .K/ H
,+* & 6

J%15- 0&5+ & ' (+,E 6 + 6 6 + &
1 1+66,, + + & 6 ,+** <* 0 &C 0
8 & ', * , F +,& 0 * 6 .<+(
&+* + & ,, - ,+ +? 0%& & 8 & ./ <
+ .& .) +66, + + * <* & *+ 1< * + &
, * , + Q- ?& -& & +(+8* .0 ? &+ -?, *
/+7 ?& & . , *7 .< - & 6 ?& & 6H
<+* - .-+ . + +,& 8 ,, * *, & C 0.+6
* F * .& 0* * * ,*+6 & 8 .& 0*
, &, , . / ' &)+& , + * ?& -& ? * + & *
? - , * 8 + & 0& + .& / & &+*
.7 * 6 & & . / 8 < * & * 6 0&
0 7 & 6 +6 . ,, - . -& *0 0 & 7 * .
- 6/ + + < * + & & & &-& * * -& ? &
S & & . ,+* & 8 , *7 - .& 0++.+,& -+ *
& & * ,+ 7 . + 0 7 * . .-& *, +/ . - +
& 8 -+66 . Q + +6 + & 0 & <+? * ?& -&
6 0& .7 - & 8 &+ +* . * . -+ * /
+ & < - . - * +,& & I +
%& & & . * - 7 .9 , * - + ,*+6& 8 , + 0 7
& --6, + - ,+* * 0 & 0+,1 +

* 6 .& & + .8+ * & * 6 + &
. .& * , * +-+ , + & - 0, -& ? 6
+ + * .* , & < * - * * - + , & 0* 7 - / +
+ & * - ?& -& & 9&+ . .7 , . 9&+ . / , + .
G< . ,+* , - * 0 & * 0+ < - .& << , +, &
C 0.+6 4

E9 8 ,)+* 6 , + ? & * . ? & & *) &*
& 8 , + & 1,

%E1 3+66 + * & 7 0 & * , * 6 + & 1m &
, 0 < , * & & 1 * +,)* ?,2+*.9&+ .<* . &
, 0 , + +, & , * * 6 & 1 * - 6 ,*+6 &
=+*. / -& + & * . , / ,+* & %&*+ .6 . 4
,< & + & 1,

%E1 * , . 6+7 0 & & - ,+* * 0 & 0+,
& 1, + + * 6 9&+ ./ .* ? &)+66, + *4
6 . & 1 * +, =+? & & R ,-+ +,% */ & = *.
+, 2*6 , + * * -(E+6 +, + ? * K : 6E 6,
+ . ' 7 . < -) +6 (,+* * ? 0 & - ?&+4
& 7 0* 6+7 . + & , * &+ , , * 6 /*+ 0&
+ & &+ , . / 0 * . . *0 . ? 7+ . Q*
<<*+7

¢ 4

%E1 * 6 ? , - . . & * , * & - / 0 & 6
+ -& .? & & - < * & * , . / -+66 .+, & & 0&
3+668, + * .8+ * .& * 6 + & 8 ,
- + (

2*00* 5

* (%1 ' %* (?C AB# %;C #>4 & + &=# ; 8> 99
8? ?C = = ? =@ 8?;4 2 ' +C" ?! < 8#?=4 C;
?<< ?= ;!?;B?8 =A#B $; # (?=!? C;= "# = C =A9
/ ;8 < =#?! C; =@ =#1=A ?<?!(@?#B=

0 ' ; #? K = @# !?; #C;= =A#B # =A?!& # # 9
=#? / ;8 < =#5 = #B #B; & # # ; #?@?= #?!#B ?D8 99
< =4 ;?=(4 = C;A
(?C ; #? K = @# !?; ; AC8 # =A#B ;# @8 4 #? @?= #?R
#E =#>!?C;K ; ?= 4 D #B !! @ ; ?!(# # 4 EB ; ?! AB# ; #?9
D @B? =D>#B ?D8 < =4 ?!#B ;& # # 5 AB# D>#B ;?=(4 = 9
AB# D>#B ?;?CAB 4 ?!XB ;& # # 5 = =@ ?!#B @ ?!!
=>?!#B K ; ?= 4 #B # & # # ?C ?!EB @B #B K ; ?= @
B 8 CKK8>#B < 5 %B ; #?K; K ; ## ; = @# !? #B ;
0 8

S * '%&(' $' / 0* & %4' J ' &' V4 4 ' ' G (' //0& &* %

4' +) *' *4+' % 4 R

$ ' 8

J%15' - 0' &' 5+ ' &' *F ,'+,' '+?0 ,'<*+ , .' & ' &' - 0' +,' '+& *' / ,+*' & 6' 6 0&' +'<* 8 .0 ' & 6'+,' &', *,', ' ' * 6 '-+ ,+*6 ' +' & ' *0&' .' ' , , 6 ' .'0 7 ' '& '<*+ + ' +'/ '* -+*. .',+*' & ' , -

%E1' 1 * '+,' = 7 '<*+ , .' & & ' - 0' +,' &'1 *'+,') . *' ' &' 5+ ' / ,+*' & 6' 6 0&' +'< 8 .0 '& 6' ' +' & '*0&'+,'<* - . 0'/ ,+*' & '1 *'+,') . *

4
J%15' - 0' &' 5+ '&' 8 , '&0&') /66 , + *', 0 ' , .' +' &' 1, ' &' &' &.'9 , * - + ' ,*+6' &' 8 ' '-&+ , 0' .'* 0 0' &' =+*. ' +,' &' * - '%& ' 0&'=+*. ' 0&'> ** ' .' 0&'> **+ 0&',&+ .'/ '-&F, ' /' &'* < - 7' / -& ' +' ' <+ ' &' * - ' .'<* < *' 6 *',+*' &' * 6 ' ' &' , '6 *' .' &' / ' '6 *'? *'* 8 - .' ' &' * - 8 '6 0&' 7 *& ,'/ '/*+ 0&' ' +'/ '-+ , . * .' ', ' * 6

/ ;8 < =#' DC#' K?#' #?' F@8C ' #B ' / ;8 < =#' #?'# " ' =>' ## ; ' =#?'#B ;' ?= ; # ?=' #B?CAB' #' #B' D ='#B;?E=' ?C#' ?;' ; @# ' ='#B ' ;# @8 5' = ' 88'!?;< ;' @#' K @ 88>'#B ' ! ; #' @#' / ;8 9' 'E =#' #' B9' ('. ' =@?= # =#' E #B'#B ' ; '#?'D '; @ = . ' ?C' ; '#?'K ' =' @#' ; @?A= W=A' C;' = '#B '3C =T' ?> 8' C#B?; #>' = ' AB#' ?!'#B ' ;?E=5' ; = =A' =' ? #B'?!' 88 A N@ '#?' ', '# " =' =' K8 @ '?!' 88'!?;< ;'? #B '?!' 88 A =@ ' = ' CK; < @>' L @8 ; # ?= ' $+'# #

U' ?C' ; '#?' K ' =' @#' # D8 B =A' #B #' BC;@B9A? ;=< =#' EB @B' ' =?# A; D8 '#?' #B ' *=@8 = # ?= ' ?!' #B ' K ?K8 ' ; @ = =A' #B ' @#?!'/ ;8 < =#' G' = ' 88'?#B ;' @#' =@?= # =#' #B ; E #B '' ?C' ; '#?' = ?C;' #?' K ' =' @#'!?;' ; =A' C@B' ' CKK8>' '< >'D '= @ ;>'!?;' @C; =A' #B '1 =A ?<'!;?<'#B 'K ; =#' =A ;' = '!?;; A=' = ?=

' ?C' ; '#?' K ' =' @#' #B #'!?;! #C; ' B 88'?=8>'D ' F# = '#?' C@B' =# ; #' '#B '; D 8' B ' = '#B #' ==?@ =#' 8 ' ?;TJ E!C% ; 9 ' #?; '!?;' D#' CK?=' ; @?; ' B 88' =?#'D ' K; C A ' =?;' C@B' B ; '?i' =#<8' EB? '; AB#' ?!' C@@ ?=' ; ' # D8 B ' D>' ' KCD88@"' =! !C' 0< =#' 4

>' ?=' ; '#?'K ' =' @#' #B ;'#?'# " ' E >' W ' ?!' ;;?;' ?;' ?#B ;9E ' #B #'#B >' B 88'# " ' K8 @ ' ' E 88' A = #' 'J4C;>'#B #' @?=L <= ' (' 'JC;>'#B #' ? 8W ' =>'K == 8

' ?C' ; '#?' K ' =' @#' ; @ = =A' #B ' #B' @#' ?!' / ;8 < =#' ' ;# =A'#B 'K; ;?A # > ' =' K? =#' ?!' C; @# ?=

G' ?C' ; '#?' K ' =' @#' ; AC8 # =A #B ' D!# ' ='#B ' ?<< ;>' ?C;# ' = ' 88' ?#B ;' =! ; ?;' ?C;#

4 ' 2 ' ; ' # !>T ' #B #' =' @#' B?C8 ' D ' K #'!?;' @C; =A' #B 8 A ' A = #' =NC ; 'D>'E >'?!' =NC # ?=' DC#' =';(K @#'?!'#B 'K; 9' ' =#' C=@#C; ' ?!' !! ; ' #B ' < ## ;' E?C8 ' D ' E 88' @?= ; ' D>'#B ' / ;8 < =#5' = '#B ; !?; '9EB ='#B '# ;< '?!'#B ' @#' B 88'D ' C # ' >?C' ; '#?'#; = < #'#B ' < '#?' ' ' #B #' 2 ' < >'A '>?C'K ;# @C8 ;' = #;C@# ?= '#B ; = =#' 0

' ** ' ?C' ; '#?' = ?C;'#?'K;?@C; ' =' @#'!?;' =' !! @#C 8' @?C; ' !@;' ; ; =A'#B ' K; # ?= ' = ';?DD ; 'D>'#B ' AB8 = ' 8 == ' = 'EB ='#B '< ## ;' ' A # ' >?C' ; '#?'#; = < #'#B ' K;?K? 8 '#?' ' #B #'>?C' < >'A #'K ;# @C8 ;' = #;C@# ?= '#B ; = =#

S' ?C' ; '#?'K ' =' @#' ; @ = =A' C@B' @#' 'E ; '!# ' =' / ;8 < =#' #' ' ; ' C #8>'A; ?C '#?'#B 'K ?K8

.' ?C' ; '#?'K ' =' @#' #B #'=?' K ; ?='D 'D = B ' ?C#' ?!'#B ' 1 =A ?<#?;'!;?<' => K ;#'#B ; ?!' C<< ;!>'9E #B?C#' 'K;?@

U' ?C' ; '#?'K ' =' @#' #B #'#B '1 =A #?;' 3C = '?!'#B #' 8< B 88'=?#' < ;;>' E #B' / K #' C= ;' #B ' @ ;# ! @ # ?=#' #B 8' '/?K B' 3C =' ?= ?;#' ?;'#B 'BC D = '?!' '(? ; A=' 3C =' B 88'D ' =@ K D8 ' #?' = ?>'#B 'D = ! #' ?;' =# A ' ?!' =>' K;? ?= #' ?;' ##8 < =# #' EB @B' #B ' 8 E'K;? #' ?;' K ;# @C8 ;' @?=#; @# #' ?;9 A; < =#' < >' B ' @C; '#?'#B < ' 7'

' ?C' ; '#?'K ' =' @#' #B #'#B 'A; # ;'(B ; '?!'#B #'1 =A ?<#' (C@B' 'O = ;"#' ;#/ ;#B#'$! #' D ; =#' = ' 'O?#B =#' ?;'?#B ; ' EB ; ' #' B 88'D '!?C= ' @?= = =#' < >' = '#B; ';?;'!?C;' ?<< L ?= ; '#?'/ ;8 < =#'#B #'#B '; K; =# # ?='< >'D '#B ' <?; ' NC 8 ' ?C' ; '#?'K ' =' @#' ; ! !> =A' #B 'K; 8 A ' ?!' #B ' C; ' ?CAB #' = ' @C; =A'#B ;' ; AB# #' =' 8 @# =A' ?!'#B ;'?E=' A #; # ' (;'#B '! 8C# #' = '#B #'#B ' C;;?CAB ' ?!')8 A?E' = ' (#' = ; E

' /-%7#31-7' .25-'6"+'24S7"9!-5#%7#31-%+' 2$-63%-,' 2831"+%3%-'/-6"+-'270'68+31-+' :+"4-58+-' 27-' 243'92,' 5+29-1'6"+' 3123'-75' "+52%7%7#31-' "231' "6' 2!!-25#274-'4"732$:-5'%7'31-' :-3%W 3%"7' "6' +%#13'3"' /-'69"+7'275'68/64+0Q-5'/-'2!!'31-' .-./-+,'275' 4!-+S,'"6' 2+!%2.-73'275'2!!' "31-,':-+6"7,'%7' :8/!%43'3+863'/"31' '4%Q%!'275' .%!%32+0'275' +-64%75%7#' 2!!' 6"+.-' 243,'%7$"07%7#'270' "31-+' "231' 9123'6"+2-Q-+' -^4-:3%7#' 31-' "231' 5-&6%5-!%' 25 .%7%63+2@ 3%"7-' 75'91%41'243'/-%7#+-25'Q"3-5'275'2::+"Q-+%' 2 '31-' .-.W /-+,'91"' 9-+-' :+-6-%$3'9-+-' 42!!-5' /0'60'Q-'23'2'!0 .-'3"' 69-2+-' D'+-:-23'31-' "231'31-'4!-+S'+-25%7#%3'/-6"+-'31-.'91%41'31-0'5%5' '263-+'31-'4!-+S,'3"'"S'%3'31-' "+5' +-6%5-73'+-25%7#%3'3"' 31-. ' 5$"8+7-5'3"' 3-7'2'4!"2S'3"' ."++"9

' 8

0' 0

'42!!%7#31-' " ,'31-' "+5' " '" D' "++-63-+' %+' "17' 2!+0 .:!-' %+' 23+%4S' 4"33' H%!%2.' "!]81"87'"6' +2%#3"87' 23+%4S' H2!!24-' 52 .-' %763%-' 275' G "17' 8++20'3""S'31-' "231' "6'2!!-25#274-' D' 3123'5-'6%5-!%' 25 .%7%63+23%"7-' D'31-' "231' "6' '2 -25#2J745' 92,'68/64+0Q-5'/-'31-' . - . /-+,'4"76"+ .-'3"' 31-'243

B 88' B ' #B ' 8 @# =A' ?!'#B ;' ?E=' /;? ? # 4' 88 4' = '%?E=9' ?C=@ 84' '#B '?#B ;' ?> #8' C;;?CAB '?!'#B '1 =A ?<' B

V' ?C' ; ' #?' = ?C;' #?' K;?@C; ' =' @#4' ?;' @#' '!?;'#B ' =L @?C; A < =#' ?!' %; 4' = ' !' #B ' SV#B ' @#' ?!' / ;8 < =#' .4' D ' !?C= ' =@?= = =#4' #' < >'D ' ; AC8 # 4' ?;' ; @ = 4' = 'EB ='#B ' K;?K? 8 ' ; ' C # '>?C' ; '#?'#; = < #' #B <'#?' ' 4' #B #' >?C' < > ; @ ' C;'*= #;C@# ?='#B ; 4= =# $

0 ' '?C' ; '#?' K ' =' @#' !?;' ; AC8 # =A'#B ' ' = ; # 4' ?' ' A?? '?; ;' = ' @K8 = '< >9D 'K; ; i' = '#B #'K ?C ' = '8 ;=L 'K ; ?= '< >'D ' <K8K> ' = '! ;? ' 9

G' ? ' ; '#?' K ' =' @#' A = #' ' # = =A' ;<>' ='# < '?!' K @ 4' DC#' ?' '#B 'AC ; 4' A ;; ?= 4' = ' = @ ;>' # = =A'!?;@ 9' < >'D '@?=# =C '0

7' ?C' ; '!;?<' # < '#?' # < '#?' ?C;='#B '/ ;8 < =#' '>?C9' B 88'! = '= @ ;>4' = 1' =' ; K @#'#B ' < # =A' < >'=?#'D '!C88>'@?=9' = 'CK?='#B '(#B4' >'?!'JC= 4' EB @B' ' KK? =# '!?;'#B '! ; # > #5' #B ; !?; ' !# ;'K =A'#B '! ; # @#'?!'#C;= =A'#B <' =#?' '/ ;8 < =#4' 7' >?C' ; '#?' ?C;='#B <'#?'#B ' V#B ' >'?!'#B ' <?=#B

S ' ?C' ; ' <K?E ; ' #?' @?=! ;'#B 'B?=?C;'?!' 1= AB#B?? 'CK?=' C@B'K ; ?= ' '>?C' B 88'! = ' ; =A' ?!'#B '!8 < 4' =?#' F@ =A' #B '=C<D ;'?!' F

?C'B 'K ;# @C8 ;'*= #;C@# ?= ' = =#' EB #' ' ; K; =# '#?' ' 4' 'A; =@ 4' !'#B ; 'D ' =>'?#B ;' #B =A ' #B #' < >'D '= @ ;>'!?;' #B 'A?? '?!'#B #' 1 =AX ?<'#?' D 'K #' =!?'8 E 4' >?C' ; '#?' @NC =#' ' '!;?<'# < '#?'# < 'E #B' C@B'? ;#C; 4' #B #'>?C' < >'D ' C#B?; ' E #B'K ;# @C8 ;'*= #;C@# ?='#B ; = =#' 0

) ='C= ;' C;' ?> 8' = ' = ' (A= #4' #' C;' ?C;#' #' ?K#9 88 #B ' . #' >'?!' >' G4' = '?!' C;' A=' #B ' $; #' ;4

7' >' ' # ' ?<< = 4

&0 *0*

2*00* '

9' # ?= 8' *= #;C@# ?='#?' 8;' AB#' %;C #>4' = ' AB#' =# ; 8>'D 8? ')?C ' = ' ?C=@ 88?;4 2 88 <'+C" ' ?!' L < 8#?=4' ?C;' ?<< ?= ;4'

' ' ;'#?' =?< = #' C;' AB#' %;C #>4' = ' 2 88'D 8? ' ?C ='= ' ?C=@ 88?;4 2 88 <'& ;8'?!' ; E!C; 4' #?' !' /; =#'?!'#B '! ; #' (?='?!' / ;8 < =#4' ;' ; A ; ' 2 ' B ' ?' B =@ 88?;' !?;' #B ' # < ' D =A

) ='C= ;' C;' ?> 8' = ' ' (A= #4' #' C;' ?C;#' #' ?K#9 884'#B ' . #' >'?!' >' G4' = '?!' C;' A=' #B ' $; #' ;4

>' ' # ' ?<< = 4

1=R9==

%E1' -',+*-+ , 0' .'* 0 0'&' * , '?'* .' '
&' *6'+,'&' ,* - +',0 , .'+'&'1, '/'&' '
8 , ')+66, + *'&'<* - . 0'. ' .'&' *6'+,'&'
-'/ 0' *0 .' ' *0'? '*, * -'+'&'0* 7 -'
'&'=+*.'+,'&' * - '&'7+'? ' 0&', .'9,'
&'-+ , . * + '+,'&' -'? &'*, * -'+'&'0* 7 -'-+ H
- * 0'&'=+*.'+,'&' * - ',&+ .'/'. .'+*' +' .'
- ** .' '&' 0 7'

])%',+* * 0 0'&'1 - +'+,'&'=+*.'<,'&'
* - '37 '/'&')+66, + *

%E1'?&-&'. '.' ' ('+,'E 6 +'&' ')+66, + *
* <* .'+'&'1 '+,' * 6 '&''?'&' '
G<*,'< , * '&' '&'-+ + '+,' * 6 '.'
-&+8 0'+,'&'=+*.'+,'&'* - ''&' , + '.''
6'-+6 0'&**'/'' -' 6/*',' ? ',+ *<*+ '
+,'&'6 6/*'+,' * 6 '-&+ '+'/'<+'&'* -
/ 0' 0&'+ '+,'7*'1 '7 ' 0&'&+/ 6 ' 0&'/ ** '
.' 0&'/ *0 , ' .'&'&'+/ 6 '-&++,'&' 0&'+ '
+,'& * ' .'&'/ ** ' 0&'+ '+,'& * ' .'&'
/ **+?' 0&'+ '+,'& * ' +'<* < *'6 *' .'-'$'
,+* &' * 6 ' .'' -' +,'&'. -,'+,' +,'
&'< * + '+-&+ '&''&'1 '+ '+,4?&-&' &< < *'
+ ''. - , .'&' << '&'6'/'-&++ 0'&+&.'
+,'&' 6'1 ''&'< - '.'&'&,'? ',+ *'
'< * + '&+ .'/'/ .'&'+,,-*'+,' '?&+'*' ?
< * 6 * *'/'&'&' <<+ 0',' &'=+*.'+,'&'
* - '&+ '+'G- .'+*'& .*'&' * 6 '+' (
'6 *'+'& *'-+ . * '&+''&'/ '&*+? '+'
.'*8- .''&' * - '.'&'1 '+,' * 6 '? &'4
E'& 6/'. '&7 0'-F -'+'&' 8, '0*-+'
< *'&' 0 , .'+'& 6' .'' <*+ - + '&*+,'&'
=+*.'6 .' &+,'+,' $

' 0&'+,'&"*' .'&'> ** '6 .' &+,'+,

' 0&'+,'& *' .'&'> **+?'6 .' &+,'+,
$
0' 0&'+,'& *' '+'/' <+'&' * - '+'<* < '6 H
' .' -',+'&' * 6 '?&-&' ? ',+ *'< * + ' *'
+'/'/ .'&'+,,-*'+,' '?&+'*' ? ' < * 6 * *'
.'&'C 0' .'T ' 8, '? &'.7 -' .'-+ '
+,'&'1 '+,' * 6 ' .'. - *'&'&' <H
<+ 0'+,'&'=+*.'+,'&' * - ' 6 *',+* .'&'
+'G- .'+*'& . *'&' * 6 '+' (' *'+'& *'
æ . * æ% ' &+''&4/ '&*+? '+'+*'*8 - .' '&'
* - ' .'& *' '? &' .7 -' .'-+ '+,'&'1 '
+,' * 6 '*, . ' .' '&',*'4 -'+,'&'&* .'
, + ',*'# < * 6 '+,'C 0')& * '&' -+ .' .'
'-' '&'? ' .'6 *'+,'&' - + '+,'&'=+*.'
+,'&' * - 'Q' '&*' - ' .'<* - - '?&-&'*'
-+ * *' .'<*8 . - '+'+*' -+ '? &'&'<* '-'
.'. - *'&' 6'+'/'7+ .' .' ' ' ' 6'-+6 0

%E1'7+'?'&' ', .',' + '-+ , ')+66 '+,' * H
6 '?''0* 7 -'+*' +'Q'- ** .'4&' ,,*6 7'&''
?''0* 7 - '.8+ * .'+'J* . ' ' ''-+ (

' 8

J%15'- 0'&'5+ '&'1 *'+,' *0 '&'= *.'+,'
=7 0,+ ') +. ' .' ' ,+ '6 'J -&*'5 *'
6 &' +&' . *,+ ' .' *-(' <& ',? *' .', /'
, *'7 .'&'+ &'+,' .0 -' .'++(' /'+ &'+,' * 6 '
.',. '.6 ,* +

*' +&''' * 6< ' + 0 *'+,' *'0 7 ' '&'3+66, + '
+'/'&' 8, ' .7+- '?&-&'? * .' .'+*. * .'F/'* '

-+*. .'&'& 7 0',+*6 * ',?+*' .',0 .'&'+ &'+,' .0H
-'/+&' '6 6/ *',* 6 '.'K' *7')+ , +*

%E1'1 * '+,' *0 '<*+. - .'&'<*&-< '+ &'+,')+*+ '
+ '?&-&'?', /, * 7 .'/'&' *' 8, ' .'&*+''? '
+*. * .'&' &')+66, + *'?&+'&.'? .'+'&' *' H
8, '? &'&'+,, *'+,'&')*+ '&7'&'<<*+/ + '0,'&'
* 6 '&' *. ,&*0 0'&')+66, + '07'&6'
/'&'& 0'+,'&'1, '.' -'+/'.* ? ',+*'&'
,, -' .'&'&')*+ + '+&? &'&'9, * 6 '+,'
3+7 * 6 '.'&'3* 7 -'/'<* .' ;'

M %E1'2 &' ('/'&'C 0' .'T ' '&,*
-- < -'+,'&')*+? '+,' -+ .'$

:1': 6' .' *'C 0' .'T '+,' -+ .', &, '
<*+6,' .',? *'/'&'+*,+ *'2 &' '<*, -'+,'&'
* '3+.'&'. * 0'&'?&+ '-+ *,'+,'+ *' ,'?'?'
', *7'&',.6' * '3+.'+'&' 6+,'+,'+ *<+? *' --+*.H
0''&'& '*F * .''&'6+,'E+ ':+*.'* 7 .'.'-+ H
.' '&'2.' .'I ?'%, 6 .' --+*. 0',+'&'
, 6'?+*.'&'6 '&'* '5 0+'+,')&* ' '&'
<* -& 0'+,'&'E+ 4:+*.' .'&'. ' .'*0&'6 ,* +'
+,'&' -* 6 '+?'* - 7.' .'<* -&.'? &'/'* 6'
+,' -+ .' .'&' /+ &' .'0 .'', ,'* 0+'
-+ * *'+'&', 6' .'&'* ' &'<+< '-+66 .'2''
+ *'-& *0' --+*. 0'+'& 4? ' .'-+66 .'+,'3+.'* 7 .'
'&' ,+* .':+*.' .'; --+*. 0'+'&'+7 /' ?' .'
-+, + ,'* - 7.' '&'* 6' +'? '* < 0 '+'&'
, .':+*.'+,'&' * '3+.' .'& '<*+- *'+'&' *6+,'
+,'+*<+? *'+'&'C *('+,'3+.' +,'&',+*, . '-* 6 '+'+,'+*' .' .'16< *'+,' -+ .'*
.':', &, ',,*6'&'& 0' /+7 ?** '/'2 *',+ 6**'
2 &' 0 .'/'D' ':& & '&' 7 &'. '+,' g'
2 '&+ , .',G& .* .4,+ *,-+*' .' ' *

$:9==9 '5'
' 5A'5 0

'52)= %92I1'*F * 0' '&'6 6/*'+,' * H
6 '+' .' 0 ,'"&'&*.'. '+,' 'G' .*'&'
< '-+ .' '&"' ,'-'+,'&' 0'+,'&'1, '
'? ''&,'6<+, .'/',+*6*'-'+,' * 6 '* .'7+ .
.' <<*+7 '4
$4 4
%E1'.* 0&'2,' '-'? '&'+,, *.'+'&'-+ , .* + 4'
+,'&' * 6 '. - * 0'&''?'&'<*7 .0'+,'%'&* '
1, '/'&'< * '+,'7+ '+,'& ?&+'6 6/*'+' 6 '
)+ 6 '+,', -&' F ' 6/*',*+ '&', 7 * D'/ -& '
,+*<* < * 0'6+ + '.'+'-+ - .' '6 *', *,'/*+ 0&'
'' '< ' * 6 '' &'&('," .'*, . 0',+*6 *'
? '-+ * *'+'&', .'<*7 .0' .', *6 -&' *0 0',
&'6 6/*'+,'&', ')+66 '9&+ .'/' 6 ./''&'< * H
'+,'&'*,< - 7'/ -& '+*'/''&'< * '+,'&'?&+='
* 6 '&'. / '? '. .'/ 4'+'/'*, 6 ./',+*' 8*'
. *6 + '8'&'+&*'<+ '&'2,, - *'+,'
'3'92,'31-7'4"7,%5-+-5'%6'31-'243'61"8!5'-^4!85-'31-' 66%4-+,'"6'
323-'6+" .'31-6-' " . .%33%-,'Z275'263-+'6" . -'5-/2%'1%,' 2$-63%-,'
" . .%6,%"7-+' 12Q%7# +-4"787-75-5'3"'31-' . - . /-+,'3"'4"76%5-+

0 & * G , 0 , , &+ E / * 6 . + & 8 + . *6 # ?&2,, - * +, , & / , < * 6 * * & ,)+ & 3* - +*. * . & * , . + . 8+ * . # ?&-& ?^ .+ %% , . G m . + C

, 8 ,

%- 0 & 5+ & 1 * +,10 & + <*+ , . 0 6, & 1 * +,3 - * / 0 - . & 1+D / ,+* & 6

J%15. 0 & 5+D & 1 * +,3 - * & R ,-+ +, */ & & = *.4/, E+?, + + 0 * 6 ++. . 3 +*0 + -* ,,,?+ * . /,-* 7 . & + &+, .0 - ,, . ++(& + &+, . 6

%E1 .* 0& +, & - . - 8 0 & <* 7 . & + &,)+66 ? 0 <* , . . * . # 7 & & 6 .6 & & 6 6/ * +, &)+66 9&+ . / -&+, / & * ,< 7 1, 7 8 & I+/ 6 / & , +, I+/ 6 & > * + / & , +, > **+ . & > *0 ,, $ / & , +, > **+ ?& -& / 0 0* . + & . / ? * , , . , & 2,, - * +, ,&+ . / , < * 6 * * , 3+66 . , * 6 -& 0 0 & - - ? 0 & < + & 7+ . - , . * . + / , 8+ . + & 7+ . <<*+7

MM)% * 0 0 &)+66 +, * ,

J25 D)E & 0 +, & 1 +, & C 0.+6 . / & * 7+ +, & 7 & +, <* * <* 6+ 0 & * 0* 7 - & &)+66 +, * 6 - . & * - ., 0* 0* 7 - + & + . & & * 4 + 0& + / +)+66 +, *& 6 / -& * ,* -&+ / & 1 + <* < * 6+ + . +7 * * & * , * 6 . & &2 , %& *,+* & * ? & .7 - . -+ +, & 1 +, * 6 .+ - . - * & & .+ / <* 7 .0 +, & 4 &* 1 +, * 6 + +6 . <<+)+66 +, * 6 +, ?& 4 6/ * +, 6 6/ * & < , / 0 F D +, 7 * 1 . -&+, / & * , <- 7 1 7 8 & I+/ 6 / & 1 +, I+/ 6 & > **+ / & 1 +, > **+ . & > *H *+? / & 1 +, > **+? ,+* <* < * 0 6+ + . +7 *H * & * *, * 6 . & &+ , +* & & &+ , 6 * 7+ . -+ - . <+ 6 * /*+ 0& < * 6 ? &+ * 6 0 & 6 F)+66 , & & (, + $ & & &+ , 6 <<+ < * - *)+66 ,+* 6+ + +* +7 * * & . +, & 6 . - * 0& */ & & +, , - * +, 1 * +/ , 6 6/ * +,)+66 6 & / & -&+, . & */ * ,- . & &, * - +, & &* . , + +, & &, * * 6 +, C 0)& * & . & * & F +* - +6 / & 0 & 6 * +, - + Q <+? * +,)+66 +, * 6 + , * & * + -+* ,+*6 + & - 4 $ 4)5 JD1 ''

E9 8 , & 0&$)+66 , + * & , 0 , . + & * & 6 & & 7+ + / 0 & *6 +, & , * - + ?& -& & & . ,*+6 & C 0 & ?+ . + 07 ! & *+ D , & * + D & & . -F . & 8 ,) . 8+ * . - + (+ 6+**+?

0 TPD

J%15 - 0 & 5+D & = *. +, ' ,? * . , /H ,-* 7 . & + &+, .0 - . ++(& + &+, * 6

%E1 5 ,+ ,+* & 7+ * 0 0)+66 . * . * , 0 & 0* 7 - * 0 +, & & =+*. +, & * - ? * 0 7 . * . . / * , 0 & * <+ < * +., N 8+ & . + & , +, & 5 ,+ ? +*. * . + / G< 0 . Q & 7+ , . , & , * ,+ 9&+ . / , + & 8 , +0 & * ? & & ,+*6 * 7+ + Q - ** . & , *6 7

M%51 2 I1 & 6 / +,, * . +4& - * . E / & _ 1 +, * 6 ,+* & - 7+ . / & 6 * . * , 0 & 0* 7 - * 0 +, & & =+*. +, & * - .)+66 +, * 6 ?& -& ? . - 6 . & 0 +, 1 . * <* . + & ? & & +,, * +, &)*+ ? . ?& & , . & - /*+ 0& / & & ,)+66 , + * <+ , * - + . + & +, , ,- . * . * , & , 6

@ > & 7+ +, & 0* 0 +, & 1 &)+6 6 +, * 6 - . & * - / 0 -+)+66 , + . + / 0* 0* 7 - + & I + ?& * / & - +,, * . / &)+66 , + * &)+66 & */8* <<+ . -+

\ > & 7+ +, & 0* 0)+66 * + + / -&+, <+ 6+ + . +7 * * , * 6 . & &+ , /G <* < * & 6 - - & &+ & (, + * 6 & & 6 ?& * / & - +,, * . / &)+66 , + * + 6 * - / 6+7 . + * - < & &+ , E , * / / & * <H <*+7 + * * 8 - . & * - &+ 0& & * / <+? * * 4 *7 . + & * 6 + (+ & * -+ . * + 6 * * 8 - . / & * - 4 4

Y > & 7+ +, & 0* 0 & 6 / * +, & 6 6 / * +, &)+66 / 0 F +, 7 * 1 & $ < + +, & &+ , ?& * / & - +,, * . / & +, & 6 / * +, &)+66 , + * & +, , - * +, 1

\ > & 7+ +, & 0* 0 & 3+66 * * + -+ N , , +, 6 6/ * , * -&+, / & 1 ?& * & - +, , * . / &)+66 , + * & +, , - * +, 6 / * +, &)+66 ?& & * & / -&+, + + > ?& -& . + & 7 . << * & & 0* 7 - 7+ . / & 1 & * - . + & 7 D 0 -+)+66 +* +, , G 6/ * +* +, 6 6/ * + -&+, / & 1 + ?& -&)+66 6+ + . +7 * * 6 , / 6 . . / + -+ . 6 + ? & . 0 , +*6 G - +, * 6 + & -+ * *

)5 JD5 ''

%E1 .* 0& +, * + / , + & 8 , +0 & * ? & & , * , + (? 0 7 Q * . Q , *,+6 6 . 6 ? 7+ . . <<*+7 *

%E1 .* 0& +, - & 0 7 . * . & + < *,+ ?&+ / 0 6< + . ? * 0* 7+ + & I + +* & ,&+? . , , - + + & & << -& 0 +* & 7 / +/, * - * +, & 0++. . , 0 +, & 0 +, & 1, / + ? . + <+, , +* . 6 . + < / - * < - +* 6< +8 +, ?& 7 * (. . * & * 8 , ? & & C 0.+6 / 8 & -+ , . * + +, & - . .

1%9%92 I1 / & & * +* +, & 9& * +, 5+G/ *0& . (*(* . ? & ,+6 <*+<+, ,/* * , 0 Q *6 0 &

4%&) /8+ . + & 5 + & ? * <* . * 6 / & =+*.45+ . , *? *. G< 0 . ? +, & ,+ +? 0 + *;, 2 & *? + * 7+ / & 0 &)*+ <+ C 0 : 6 . T * 6 0& / & &+ 0& &+ ,, - , + . . , . - +, * 6 -+ . / +/ * .c . 0 & ,, 6 . *6 + +, & 1 K

' M[ )%' 5 ,- . 0' &' -'+,' * 6 ' !'

2D5' +7 * 0 '=+*.' .' = . ' &' C 0' .' T ' ' 8 , ' (0' +' &' *'-+ . * ?' &' / ' &' -+ .' * - ' +,' &4' 0* 7 - '<* .' +' &' *' 8 , ' / ' &' 1 ' +,' 4 &' C 0.+6 ' ' '. - * .' &' &',* ' -' +,' &' 4 *' # 6 ' +,' C 0')& * ' -+ .' .' -' , * 0' &' 8 , ' <* 6 -'+7 *' '< * + ' .' ' '- ' -- H - L' ' -+ ' ? &' &' / &6 '+,' &')& *-&' 0+7 * 6 ' +?'. * .' .'+ 0&' +'/ ' /*+0 ' %& * ,+*' & *' 8 , '? &' .7 -' .'-+ '+,' &'1 '+,' * 6 ' .+' & * / ' /*+0 ' * - .' .' ' &',+* .' - ' .' . - * ' &' 6 ' &'& D'& . ' * - ' .'- , ' & * +,' +' / '+,' +',+*- '+*' ,, - ' ' ' 6 '-+6 00

%E1I' &'.* 0&'+,' ' -'? '07 ' ' <<+ 0' ', '$ - '+, ,+*, * ', ' +,'+,'+,, - ' 6<*,+ 6 '/ &' 6 '< *, '< *, - + ' +* * ' .' * 0+*+ ' G - + ' < , ', - ' &' *' TPPQ' +'/ '* ,- . .' .' &'< *,+ ' & */ ' , .' +'/ '* .* ,, .' .' +? 0' D'-+ - * .' +'<* , ' & N - + ' ' * 6 ',+*'+/ 0' &'/ , '+,' &' - '/ ' *' ' ? '* .' & ' 8 , '& 0&')+66 , + *' * , 6 .'E',+*6 *' 6+ + ' & '/ ,+, ' * 0' <+ ' '+ & *' / , , ' & '1, ' 0&'-+ , . *'+,' ', * & *', << ',+*'6 0' &',+*- ' .' <* , .' &'<+ '? &', 7 * '* ,+ '?& -&'? * ' *0 ' *0 .' / ' &' * , . ' a' & ' 8 , ' .7+- ' : & * <+ ',+6 ' . / ' * , 0'& ' 8 , ')+66 , + *' , *' & 7 80', * + , ' * -+66 . .' +' & '1, ' +' <+ . *' &' - , '+,' &', .' , * & *', << ',+*'<* , *7 + '+,' &'C 0.+6 ' ' & '8 - *' +*. * .' &' * , . ' +' .8+ * ' .'?& -&'? + ' '% ,' . ' G' ' '-+ (

T)52==' +,' ' -' 'J+*, * 'Q-

J21 D)E' ' &'1 '+,' &'C 0.+6 '& 7 ' ' & *' . 6 ' +,' * 0&' . .' &' ' +,' <* L' ' . - * .' & ' &' - 0' < *, ' Q' ,+*, (' 7 * ' < * + ' 8<+ ' G -& '+,' + .'Q' +/,+ ' ? ' <+ ',* 7+ + 'Q'? ('<* - ' <+ ' 6 ' Q' . , - 7 ' < +/ < ' ' < * - * ' &' '1 * '+,' *0 ' * '-+ * * ' +' ?' .', *. *6+*'%& ' ',+*, +* ', ' +,' +,'+,, - ' 6<* + 6 '/ &6 '< '< *, - + ' +*H * 'Q' *02*aN 4G - + ' * ' +'/ .'-+ , . * .' .' &'< * ' , .' +'/ '*+.* , .' 2 *' +7 * 0 '=+*.'Q' =&. ' &'C 0' Q'T ' 8 , '-+ , . * 0' & ', 7 * ' -&' - '& 7 ' < , .' -' &' *' g' .+' ? &' .7 -' Q' -+ , <'+,' &' 1 '+,' * 6 '2*. 'Q' <<+ ',+*' &'* ,'+,' &' .0 '?&+' & 7 ' ,, * .' ' 6 *' /+7 ,< - , ' & ' ', -&' , - '/ '* ,- . .4' .' &' &'< *,+ ' , .'/ ' ,, - ' * .* , . .' +? ' '< *,+ ' -+ - * .' ' ,+*, .' +'<* H , ' & *', 7 * '- , ' ' * 6 ' +' &' .' & ' &'/ , ' +,' &' - '6 ', ' << .' +' & 6' '< * - *0'

' 8'9 ,'
4

J%15'- && 0' & '5+ ' +& '32*.+ '+,'16/+' .'3 +*0 ' 3+*.+ '& '/ & & *',?+*' .', /,-* 7 .' & '+ &'+,' D .0 ' - ' .' ++(' & '+ &'+,' * 6

%E1' ,'+,' &' /, ' 6 6/?' ? ' & '+*. * ' +' / ' & ' * .' .' & '1 * '+,'= &0+?' .'C 6 * +-(' =+*. ' + ' 3* ' .') &- *'Q' %&+6 ' C . ' : *' G- , .' .' &' 6 ,'+,' G - 0',/ '<*+- 6 +' 0 ,' &'* ,'/ 0' + ' , . * .* '* + 6 '? '6 . ' & ' '6 0&' / '. *6 .' ,',& ' . . + L'< '/ , . ' & ' 6<+, .'/ ',+*6 *' - '+,' *' 6 '-+ .' / ' , - .' / '7, * ?'+,' &'8<*+- 6 + 8 ' '? * ' + -& .' .' & .' &' *+ ' , '?& * <+ '8& ' -+

, . * + '+,' , - 0' & '< *'+,' &'< '? '. .' .' ' &'6 ' 6' &', ' 6<+, .'/ ',+*6 *' - '+*. * .' +'/ ' G - .'/'& ' 8 , ' +&- +*' ć ß

E9' 8 , ')+66 , + *' 0 , ' +' &'1, ' &' ' *' / .'/ ' /*+ 0&' +'& 6', +6' ' (+? ' & .' . ,-+7 * 0' & ' '-+ ,<* - '? ' * .' '/ ', 7 * ' < *,+ ' 'Q' /+ ' 1. / *0&' 0 6,' & 3+7 * 6 'Q' & ' <+ '. ,++7 * ' & ' 3* - ' .' &'=+*. ' +,')+ , '& .' - , .', - *', 7 * '< *' 9/ ' 6 .' &' *' .' + & * ', ,< - '0 ' ,,' 0 7 ' ' & ' *'?& -&' / 0' * .' &'3* - ' 6+7 .' & ' &' * H 6 ' 6 0&' -+ , . *' ,' '? ', ' +' < ' ,+6 ' +,' & 6' +0 H & *'? &' & , '.* 0+ '?&+' -+ , , .' & *' -+** ,<+ . 0' ? &' ' . ' +' &0' +* + *' .' &+?', *' & ' 6 0&' 0* '? & & ' * - +,' &'- 6 '+,' * 0&' ' +* + *' .'& - ' *0 0' %' - - ' ' -' ? '.* ? ' .' <<*+7 ',+*' &+* S 0' & ' =+*. ' ,' & ' 8 , ' * 7 ')+ , ' +' < ', -,+' +,' & ', . ' < *,+ ' +' & '+* + *' ' & ',& D' & ('. ' & '6 (0' ', * & *' . ,-+7 * '+,' & ', .' -+ ,<* - ' 0 ,' & '3+7 * 6 ' .' & ' * -& * '+,' & '.* 0+

T9IJ25 %92I1',+*'& '3* - ' & ' ' ('+,'E 6 + -' -+ - * 0' ' +

A' '< ,' + *' 3* - ' %& ' ' ' D04 %E9' 0&' /+ ', G' ' - + -(' g' ? ' ,+*6 .' +,' +6 ' 7 L' - .'< *,+ ?&+'- * '. ,0 ',+6 ? -(.' *<*, ' ?& ' ' 'g' (+?' + ''/ ' & '< * - *' < *,+ ' '*' & ' / H + 0 0' +' &') , ' ,< - ': , *' -+ ' ' 6/ * '= &8' 9 % ' + '% *, + ' + ' : *0& '? &' 6 '+& *' -+ - * .K & * '/ ' ', /,-* 7 .' < < *' ?& -&',+6 '+,' & 6'& ' & * ' *'+ ')+D+ ': / '> *'Q' ' 6/ *'? &',+6 '+& *'+,' 1 0 &'Q' 9* &' 2,, - *' * 0' ' + ' '> -(,* *' ? .' (? ') < '' + 0 'C D&< .'/*+ & *'= ' * 0 ' .' , 7 * '+& *' g' 6', * '9 ,+*6 .' +,' ?& -&' g' &+ 0&' ' 6 ' . ' ' -+ - -' -P ' + *' 3* - '< %'' %&' *+' % ' =+*. ' <*+7 . - ' & *' < * - + ' . ,0 ' 6 ' / ',* , * ' *+' 6 '<* 7 0' & 6' g' - ',, ' +' 6 ' * ,+*6 + ' +' 6+*H *+?' +*' + . ' ', *& ,,' & ' .' +' < ' ' G - + ' = ' +' +<,' 3* - '. < '& ' .7 * - 6 ',+*' g' , *' + *' 3* - ' ' ' +' ' ' ? '& ', ' ,',< . '< ' '<G - + ' g' ? ' & +,' 0 .0 .'6 , , '?& -&' 6 ('6 ' (+?' & '* & ' g' 7 ' & '- 4' +,' & ' +' + 3* - '? , '. *6 + ' .' , ' 7 *' <* ',+*' & '-+ - '+,' & ' * '<*+ , 8 '1 0 +*' 8 &+ 0&' g' & 7 ' / '6D .',+*' 6 ' .', 8/,-* '7 ' 6 , ',' ' , * & *' (+? .0 ' -' R' ' g' 'C

* + ' <<* & . .'

+& ' G? '+,'> * / -&) <4 6 ' : -&+< +/& 5 * %&+6 ' ' 6/ *)/*, +<& *')+* ? +& ' +* 6 * = 4')+D' 1.? *.' : ,+5' $: 6' -+ !-^G #!-Q6- ' G'> * ' + 0+6 * 3 +*0 ' ' G'9 '+,'2* G H&d 831-+!275 +& 'C * 6 ' G . * %& ' ' *'+,' & ') ' +& ' T

G'>+* &? -('K8 6 '9*7 ' R * ^ G' : ,+ ' '> %&+6 ')& 6 * ' 6 ' -+6 ') <4 '+ 0 ,' 5+4 ' 6/ *' 1.?2%.'> *')/*, +<& *')+6? 5' ' + %& ' ' ',3+*.+ 1'+,'E 6 R,'2G ,++*. „) <4 5 6 ' = *.'+,'= 00' 6 ')+-(/ * ' +& ')+-(/ * ' : De' 66' 3 +e : * & 6'Q' +6 '6 *'< +< 8

%4' J ' O ' 4 ' + ' G 3+

$ / ' / , . ' & ' 2,,- * ' +, ' /+' & ' & ' <<+ 0' +,
$)+6 6 ' +, ' * 6 ' - . ' & ' * - ' ,&+ . ' + ' G- . '
+" & . " & ' * 6 K+ (' 6 " +' & " -+ , . * '
+ ' &+' & ' / ' &*+? ' + ' +" * 8 - . ' & ' * + '
+" <* 7 ' & ' 6+7 0' ' & 0' ' < ' * 6 ' .
$* 6 0' +, ' +' & ' * - . ' & ' 1, ' +, * 6 '
? & ' & 6 / ' . ' & 7 0' -F , . ' +' & 8 , ' O* - + '
< , * ' & ' 0 , . ' +' & 6' . ' <*+, - + ' & *+, & ' '
=+*. ' 6 . ' -&+ , +,
' 7 ' +, & " 1, . ' & ' > *+ ' 6 . ' - + , +,
4 $ ' ' 7 ' +, & * '
1, . ' & ' > **+? ' 6 . ' -&+ , +, ' 7 ' +, & * '

1, ' +' / ' <+ ' & ' * - ' +' <* < * ' 6 *' Q' - ' +"
& ' *D 6 ' ?& -& ' ' < *,+ ' * ' +' / ' . ' & ' 2,, - * ' +,
' ?&+' * ' < , * * ' ' . & ' , ' < *,+ ' * ' +' / '
<+ ' & ' * ,- ' +" & ' < ' +, & $$ + ' . & '
& " +' / ' -+ +? . ' +" ' ?' +6 + ' +' / ' 6 . ' +, ' '
< *,+ ' ' +' / ' <+ ' & ' * - ' / 0' 7 ' +, 7 * ' ' +
/ ' -&+, ' ' 6 " +", . ' +' -+ +?' +" & ' < - ' +, '
+" + 0 " +",&+* " ' ' & ' * 6 ' & ' (' , ' .
& ' C 0' Q' T ' 8 , ? & ' .7 - ' . -+ , ' ' ' & ' +, ' & '
1, ' +, * 6 ' ' . ' * & ' & ' 3+66 ' '
+, * * , - . & ' * - * ' +' -+ , +, ' < *,+ ' '
' 6 ' -+6 0' / 0' 7 +, 7 * ' +' / -&+, ' '
6 " +", . ' / . ' & ' 2,, - * ' +, ' ?&+' * ' ? '
, < * 6 * * ' /+ ' & ' & ' <<+ 0' +, ' +, ' *H '
6 ' - . ' & ' * - ' ,& ' +' C- . ' +" & " & ' & '
* 6 ' +' (' 6 " +' & " -+ . * ' & ' & '
/ ' &*+? ' + ' . ' * 8 - . ' & ' * - ' +" <* 7 ' & '
6+7 0' +, ' & & 0' ' < ' * 6 ' . ' * 6 0' +, ' +' '
& ' * - ' ' +' & ' ' < *,+ ' . ' & ' * - ' +' '
7 * ' ' +' / ' <+ ' & ' * 6 ' ,& ' & (' , ' ' +" & 8" '
+" +, ' " +' & ' * 6 ' ,& ' & (' , ' ' . ' * ' ' '

5-/2%3 2+"6- 91%41 4"73%78-5 6"+6" . -6:24- /83 /-6"+-+-6"!Q%7# 31- 2+!- "6 +#0!- 5-60+-5 3123 6-%7# 1- 125 /-%7 " . . %6@ ,%"723 3"" . 2S- 31- "66-+ "6 31- +"87 3"631-%+ 2$-63%-, 275 125 -^-483- 1%,4" . . %6,%"7 275 7"9 3123 1-92,4" . . 275-5 %7 31- 6-+Q%4- "6 31-%+ 2$-63%-, 275 31- %7#5" . - 2#2%763 31- +-1-!!, 275 S7-9 7"3 91-7 1- 1"8!5 +-38+7 31-+6"+- 31- 2+!%2 . -73 . %#13 5-4!2+- 31-%+ 2: :+"/23%"7- "6 9123 1- 125 5"7- %7 -^-W 483%7# 31- 62%5 " . . %6,%"7

92, 31-7 . "Q-5 3123 /-6"+- 270 6841 2: :+"/23%"7- 2 :2: -+ . %#13 /- +-]5 4"732%7%7# 6" . - %73-++"#23"+, 3"" /- :83 3"" 31- " . . %6,%"7-+, 91"" 9-+- 6-73 3""233-75 31-%+ 2$-63%-, 9%31 31- "66-+@"6 31- +"87 275 31-+8:"7 "+5-+-5 3123 31- %763+843%"7, 91%41 9-+- #%Q-7 3"" 31- 62%5, " . . %6,%"7-+,G . %#13 /- +-25 D 91%41 92,5"7- G A

M 9I%15523 %25 +' &)+66, + *?&+- *B. <' &) 6 +,5 0& .+,, *+,&)*+ Q-,*+6 & 1 +,-+ .+ & *8, : 6 . C 0 .T +,1 0 .

Y '9' + --+*. 0 + + *9 * - + * .+ & *8, & ?&+ ?* 0 & +*. *' K %&) 6 +, 5 0& .+,, *+,&)*+ .+ & 2 &+, D .0 - /8+ .: 9%& * - +,3* 7 - ;9%& ..*, +,& 1 ,+*& 7 0 8 6 0 * .+ + * 6 %& +& + / (, -- < - +,&)*+

@ ' .+ + + * ,+* / < *,+ " *<+, P .7 & +& *+. * &+ .+ / . + & & +& &+ .+ / (/ & * 8, / ,+* & 3* 7 - +* ..*, +* /+& ? * * .+ .+<*

A cJ %5>?C ?;=>K ; ?=!?;>?C KC#=>#!"6,?;=#;K; L # # ?=' K?=>;#@8 ?;K? =#?!#B !2%.?!%#!63?;A!31- & +-%Q274-,7"3!-2Q%7#3"-.3"31-:!2%7-275!%3-+2!K,-74- G 3&U %5 0"8@b$-+270 25Q%4-3"'1%, 2$-63%-8:"7631-6%+,3 +-%Q2:4-4"74-+7%7#31- "..%33--"6 2+!%2.-73 "+a4"74-+7%7#31- 66%4-+,"6 323-!)%-%+/-%7# 8:-+78.-+2+0%7 "..%33--, 6 0"8 5%5 9123 92,0"8+25Q%4- 4@ '.+ + .7 +*.*?& 9 * - + +&)+66, + * 7 +& 3* 7 - & *, - %V 0"8 25Q%6-3123 31- 255+-6,6"+38+7%7# 31- --3%7# "6 31- ,323-,%73"2 2+!%2.-73 %5%"8!5 7"3 /-+-25 31- ,2.- 520 3123 31- +787 92,3-75-+-5 275 31- !2%.""6 %#13 27 +-%Q274-,:+-,-73-50 j A

%3 92,5-/2%3-5 91%31-+31- "7,.%6,%"7-+, 1"8!5 /- %73-++"#23 8:"7 31-:2+3%48!2+%763+843%"7,"+8:"7 31-%73-++"#2W 3"+,7"9#%Q-7 %7 /83 /-6"+-5-3-+.%7%7# 31-:"073 16- 2W $-63%-, 42.7%6,%"76-+"+5-+-5 31-%+25$"8+7%7# 91%41 92,5"7-3 ! %0520 7%^3 23 3-7 2 4!"2S

'> 8!%$ '*(=

42!!%7# 31- "!!, 1".2, -77-5%- 63& "41.2/2& 275 "17 75-+6"7 6"+ 7Q-+8+0 69"+- 275 68/64+0Q-5 1- "231 "62 -2 274- 275 3""S 31- "231 "6 2+!%2.-73

92, .25- /- 31- +6%5-7 3123 31- 2+!%2.-73 .%#13 4"76%5-+ "6 -66-4382!! .-27,6"+ -^243%7# :20.-73 "6J31- 6-9 5-83%-, 275 "31-+ 4+"87 +-73,5-9 3"" 31-%+ 2$-63%-, 6--%7# 31-+- 92,7"" 6%#7-3

2.-, 2.620 "6& 2.66 69"+- 275 62/64+0Q-5J31- "231 "62!!-25#274- 275 3""S 31- "231 "6 2+!%2.-73 275 %3 92, "+5-+-5 3123 31- 2+!- "6 ++"!! 31- 62%5 2.-, @ 2.620 275 "17 75-+6"7- 1"8!5 /-5-!2%3 "83 "631-!%63 "62/6-73, 1".2, -77-5%- 6"+.-+!0 /-%7# -^486-5

*

+5-+ 3"" .-6,%7#-+, 23 2+.,6"+ 412+#%7# :-+6"7, 3"" .2S%+ :20.-73 "6 31-%+ 2$-63%-, 4+"87 +-73 "7 6%^ 5620-, 875-+ 31- :2%7- "6 :"075%7# 31-%+ #""5, 275 %.:+%6,"7%7# 31-%+ :-+6"7,, 4"76"+.3"" 31- !%63 "6 5-6%4%-73,3"" /-.25- /-31-J#-7-+2 +-W 4-%Q-+, D 2831"+-%T%7#%6 31- +%Q%- "876- 3"" #+273 275 -.. 7.0 26:-76%"7, "6 6841 412+#-, 92, 31-7 +-25 2:5 2::+"0-7

2$-63%-, ". .%6,%"7-+ 31-7 ."Q-5 3123 %7 +-#2%+5 "6 5%5 %76"+.23%"7 #%Q-7 3123 6".- +%6!%9-+- 31-7 4".-"Q-+ %7 31+--6!%%:, 3"" 31- 26,663274-@"6 31- "+5 875$-31-+6"+-2, 31- +%Q%- "876- 125 #%Q-7 31- 7-4-6,2+0 "+5-+, 3"" 31- ". .275-+, "6 31- 63275%7# 6"+4-, "7 3123 "4426%"7- 31- 2+!%2.-73 .%#13 4"7W 6%5-+ "6 31- /-63 .-27,6"+ :833%7# 31- %7#5" .-%7 2 :"638+- "6 5-6-74- %7 42%4- "6 -^3+-.%3%- 275 263-+ 6"7%- 5-!%/-+23%"7 31- .233-+ 92,+-.%33 3"" 31- :+5, "6 1%, 2$-63%-, +%Q%- "876-!!

A

2$-63%-, ". .%6 "7-+ 31-7 "66-+-5 31- 5+28#13 "6 2+%2624 3 6"+ 6-3!%7# 31- 18+41 #"Q-+7 .-73 +-Q%Q%7# 31- 6%+63 243 "6 2+W !%2.-73 ';=> -632/!%6!%%7# :+-!/%3-+%2 275 607"5%42!!26,-./!%-, 275 +-64%15%7# 2 31- 243,%7 62Q"8+, "6 :+-!24%- D4

,32/!%,1%7# 31-& 18+41 "Q-+7.-73 %Q-7 %7 3"" /-+-25 %7 2+!%2.-73 /0 1%, 2$-,3%-, ". .%6,%"7-+

J25 D)E & C 0 .T & 1 K+, * 6 / & *-& \+, 4 /+ & 0 * - .+ & < *+* +,)& *-& +,, -* /+7 * / *8 & C 0.+6 . . - * & & ?+ .&)&6 -& 3+7 * 6 & C 0.+6 ?& -& + 00* / + & - + +, & < +< .+ -+ . * 0 & &)& *-& 3+7 * 6 / 0 * , <*+7 - L Q < * / * D , 6/ 8 ? & & , + +, & C *(? / & .+ / & - * C é é &+ . 0* / + & 4 - + +, & < +< %& * ,+* & C 0 .T ? & .7 - .+ +, & 1 +, * 6 * 7 7 Q * & .+ -+, * 6 &

$?&+ ' & . '<+ ' ' - '9& *+,'p? & & ' G<* ' - * ' # < ', &)& *-&'%& * ',*# & ' ' . - * ' & ' & ' / ' & ' .7 - ',+; & ' 1 ' +,' * 6 ' .'8 . - +* ',+; & ' T ' 8' ' . - * ' & ' ' ' + ' ' '

I 1' . .* , ',*+6' &'<* ,/ * '6 , *' '&')& ,-&'
3+7 * 6 '? '07 ' '/'&'3* -' .'* .'> '> ,+* &'
-+ , . * + '+,'&', .' . .* ,'&',+*6 *'. '. / ,-'? '
*, 6 .',' &' +6 + '+,'&' , +'6 .'/'&' 8 4'
'&'- -'+,'+ 47 - -'* F * .'&' &+* '+,' * H
6 '.',''? '* F , '/ &'-+ , + '+,'&')+ .0'
+,' , -' &' &' * , . '+,'&'- ', + .'/' - .'>'
&'=+*.' .', *' 6 -&4 . / 0' <+' &, '< '&'
.* 0&'+,' -'? ' 0&07 '/'' 6 6/ *' '+*. *'
+'/'* .',+*. - * 0'&'6 &+.'+,' 6 0' .8 .6 0'+,'
&'=+*.'Q' * , . '+,'&' , +'?& -&'? '.+ '/ '&'
< 0'&'-'+'&'7+ '. .'+'& G' . * '
$ 4
'21 1C1''&' ' 6'-+6 0' <+' 7 *'6 0'+,'&'
* '/ ,+*' '+&*' 6 *'/''-+ , . *.'&' 6,'+,'
?&' ? '.+ '&' . *6' 66 . '<* - . 0'/'* .'
.'&' &' 6 &+.'+,' 6 0' .' .6 0'&'=+*.'+,'
, +'&+ .'/',*,'-+ , . *' '&' G'6 0' .8+ * .'
&' +' '-+ -(' +'6+**+?

' ' :;' 8!%$ '*(=

J%15' - 0'&'5+ '&' *, . '07' ' '+7 * *' '
?* 0',*+6' &'=+*.'+,' *7 ')+ , D'6 .'+'& 6'/'
8+*'3 * ' @C '& ' +*. *',+*'&'/ . 0'+,' ',+*'
,+*' '0*,+ ' '9 7 *+-& ' '=+-&/ *' '<+ *' .'
?+*('6 '/', '+' '< -',*+6'&' 0&/+ * 0'9& * ',<*'
&',, -'?& -&'/ 0'* .'& ' 8, ')+66, + *'<*, .
4 &' G< . -'+,', -&' '0*,+ ' '9 7 *+-& ' .' (? '
,0 , .' & ' &'=+*.'+,'& ' 8, ' *7 ')+ , '& .'
6 .' '2*.*' & ' &' & * '+,'1.K'= &0+?') -(H
6 'J , ' .'C *+,'9&+ .',+* &' & *' ,<2- 7'<*+<+*H
+ '+,'/0 .0'&+*,', +*' &' 6+*'-+ 7 '6 *-&'+,'&'
6' 0 ,'&< /' '+'?& -&' & '. , * .'&' &+* '+,
' * 6 '60& c/' *<+ .' .' & * <+' &'2*. *' +,
')+6, '? '* .'/' &'6 *' -+ .' .'+*. * .'+'/'
-+ , . * ./ ,+*' '+& *' ,, *' ' &' G'6 0

25D151''&' &')+66, + *',*+6' &', *' +,'5+ '
9 7 6, 'I * ' ** '> 6,,' /*. '!'C -*. '6 ' '
,+ *' '-+ ('&' , 2* ++' .' .8,' &'<*+<+* + '+,'&'
<+ *'+/', ',*+ '&'* < - 7' .8 - ', Z '+'9 7 *H
+-&' .'* <+*

%E1'.* 0&'+,' -'<* ,-* / 0'&'6 &+.'+,' 6 0' .
$ .6 0'&'=+*.'+,' , +'? '* .'? &'&' @4 -'
P' *' .'&' '-' * ¢C'¢ ¢ '+'?& -&' '*, *'
.'V, *6 -&. / ' '<* 7+ '7+ '? ', -.',' &'7+8 4K+,'
&'&+ ,' '* + '+'&'-', + .'/', .' '&, '*6'
<<*+7'+,'&' -'+*' +'+*' '&, '*6'5 <*, ' ',+'&'
8, '+' +' .'- ** .'&' &'7+ ', + .'/' '&, '
6' <<+7'+*' +'&' &'7+ '/ 0', .' <<*+7'+,'
&' -'+* +' '? '- ** .' '&', *6 7

T)%' '&' .6, +'+,'&'+*. *'=+*.'+,'&'
$, +' .'* ,+*6 +'+,'- * '/ , '&*
&
)('C 0' .'T ' 8 '-+ .* 0'&'/'&' ? '
+,'&'C 0.+6'?& '&'< -'+,' '2*. *'=+*.'+,'&' ,'
+'.+'7 -(' ' ',+'/' << .'/'&'C 0'+ +'+,'
',' .'P D , .'< *,+ ',+*' &' .'+,,-' .'<* , 0'&6'
+'&'*)'+,'&'=+*.'+'/'* .' .' .6 .'+*'*8 - .'/'
&6' .'&' &*' +?' + '7 - &- '+,'&'=+*.'+,'&'
, +'/'&'&<< '-& 0'/'&'/ , 0'+,'3+.' +?'/*+ 0&'
/+ ',+'&' &*'- '/' +?' +', -&' * '/'&'=+*.' .'
&'?& ', -&' + '7 - - '&7', ' + '&'=+*.'? *

& *' +6 '/'&'C 0' .' * 6 '8+& '+*' ,'&'
? *' +6 '/'&'C 0'&' 6 +'? ' <*+7 ' .'
&'=+*.', ' +6 '? *' .6 .'/'&' * 6 <'%& * 4'
,+*'&' *' 8 '.+'. - *'&'&'?, '+6 ', ' .'
F , .'< *,+ ' '&', .'+,, -' .'< , '& 6'+'&'
* 6 '+'/' .' .' .6 .'+*'*8 - .'/'&6'=('4
&*' 8 '? &' .7 -' .'-+ , '+,'&'1, '+,' * H
6 ' .'+*. '&' ' 6'&* , *?& '
,&-&'+ '7 - -'&'+-- **'&'<<+ 0'+,'&'=+*.'+,'
&', +'&'/''/'&'C 0'+*' T ',+*"&c 6' .' '
-,'+,'&*' 6 +* '/'9& *' 5 0 '& ^' +6 0', ' .'
F , .'< * / '+'&' .\'+,, - ' .'8*, 0'& 6'+'&'
* 6 '+'/'* 88,' .' .6 .'+*'*8 - .'/'&6' '
6 *',/* .'=('1 *' 8 '? &' .7 -' .'-+ , ,'
,+* .'*, ' .' <<*+7'&' '&*.' -'+,'&<'G' *H
6 '+,'C 0' 6 '&' G' '&' .6, +'+,'&'2*. H
'=+.'+,'&' , +' .'*,+*6 +'+,'- * '/ ,
& * ' .'&'& .* &'&* '?+' -'+,'&' &' * '
6 '+,'C 0' 6 '&' G' - '&'8 * .- +'<*, +'
F ' .'0'+,'&'=+*.'+,'&' , +' '&'& D'& .'
- , ' .'* - '&* +,' .'< * - * '&'- , '-+ .'
'&' .'?+' -'. - * 0'& ' ' 6'&* , *?& ''
'< -' &+ .'7 (' '&' , +'&'&' 8 '&+ .'
+6 '.'<*, '&*+' ' ', * 0'3+.'+,'0++.' * H
'< - -F'8 .0 6 '.' . *, . 0'+,' % ? '+,'0++.'
, 6'&7 0' ,, - '7 0 +,'&'+? '?+*&' ? '-& . * '
+,'7 - '+,' *&' * ' .'?&+') '6 ('0++.' G< . +'
.', < -&' *'6 *'+ -& 0'& 4 .0 '+,'&'* &'
.' (? '&'+ 8 8' - , '-+ .' '&', .' '
&*.' -'+,'&' G' * 6 '+,'C 0' 6 '&' G'. - * H
0'&'&' * . '+,'&')+ .0'+,' , -',& /'-&+, '
/'&'& '+*'&*+,'+,'&'-+ . +' .'F '
/+7' ?* ',+*-&++, 0' .' - 0'+,'?&+6'&'C 0'
E 0& '.'1, '. ,< ,+'? &'&''< *=+,'&', *,' , '
2'+,'&')+ .0'+,' , -' '&' - +'+,'&' * H
, . ' ,+*'&' 6'' &'/' , 6',+*'&'=+*.'+'-'
.'B-&, ' '+ '+,'& *' 6/ *'?&+6 & & ('F , .'
.'?+*&, '?&+', 5'/'- .'R - *, . ',+*' , 0' ,'
&', .'+,, -'- 0'+,'6 *'*< 0'+,' .0 - ''
<*+<+ .'/'&' .7+- ' '&'/*'-+ - 0'+,'&'=+*, '
7+ '.'<*+ + - +'+,'& *' . -* ' .' *+F F* '
' ' .'?& '&'* * 0'+,'&', .')& - +*'+*' *8. '
= ('& *' 8 '? &'-+ , ',+*, .' '.'2*. '
&'&'& 'F , - + '/+ '6 + .'/'. '+/, *7 .'
'&' .6, +'+,'=+*.'+,'&' , +' ' ' 6'-+6 0'
.'& ' ,? ' '&'-, '+,'' + 5' ' ' 0'7 - - T

9%'? '& * <+' *0 .' '-+ ,+ ' '&'7+ '&'&', +<4'
<'+'&', 0 '9&+ .'/'-+ .' .' --+*. 0 ' '+*. *'
? '<<+ .'+'/'.* ? ',+*, +< 0'&', 0 ' ,'&'& 0&'
)+66, + *'9&+ .'* <* , '+'&' 8, '&', .'7+ '+,,'
* 6 ' '&'.6, +'+,'&'=+*.'+,' , +' .'&'
8, ', + .'. - *'&'< , *'&*

' 2%92 I'? '&'6 .'&'&' * 6 '6 0&'<*+- .'
+' 6')+66 ',+*, 0'&')& *-&'3+7 * 6 '.'-+ '
, . * 0'&',+*, * 'Q-' .''/ 0'F , + .'/''6 6/ *'
,')+66 '-+ .'/' 0 ' 6 ./'/''&' * 6 ' L'
&' - ', /&,& 0'&'=+*.'+,'&' * - '? *'*,- . .'&'
-+ , . * + '+,'&'<+ '? '. .' '&' G'6 0

% 91'+*. *',+*, +< 0'&', 0 '? '&*, *' * .'Q' <c'
<*+7 .8+ * .'+'%& ,,. ' ' ''-+ (

' 8'

J%15' 3 0' &' 5+ ' &' 8 , ')+66 , + *' <* , .' & ' &' * 6 '60&' d' +' & *a-+ , . * + ' &' - ,' '+,', * , 0' &' *6 '? &'/ 0 .0 '&+*, ' .' & *,+*' &' &' -',' *7 ')+ , D' 6 .' & * '60&'/' <<*+7 ' ' * 6 ' .' & ' +*. *' 60&'/'07 ',+*', . &0' &' ?+*(6 ' .'<+ *',+*'/ . 0' &',+*'8,+*' &'0*/ ' ' 97*+-&'?& * <+' &', .' -',+,')+ <D' ? ' 0 '* .' .K &'6 *' -+ , . *.' F.' ' -'+*. *.' +'/'.* ? ' &+*S 0' &'=+*.'+,'& ' 8 , ' *7 ')+ , ' +' <<+ ' &'* '+,'& * ' .' 6/ *' ,' &', .'/ 0 0'%8+*, '?+*(H 6 ' .'<+< *' .' . - * 0' &'&' * 6 '? '+*. *' ',+ . ,+*' . ,* 0' &', .' -& *0'. * 0' &'<* , ' G0 ' 8<' &' *6'+,' &' -' .' & '&'& * '+,' &'/ 0 .0'&+*, ' 4 * .' <<+ .'/'&')+ , ' +' .' &' *6'9& '/' (' +'-+ , . * + '/'&' * 6 ' "

9I%159 ' +*. *.' & ' &')+66 , + *',*+6' &' .8 - ' 9& * '6 ' ', 7' '-+ (' &' , * ++ ',+*' .8 , 0' &'<*+H <+* + ' +,' &' ?+*(6 ' .'<+ *' +'/', ',*+6' , ' 9& * ' +'9 7*+-&

%E1' .* 0&' +,' ' -' ', 7+ *'+,' &'*+ '/ *0&'? ' &'07 '(' +'/'* .

%E1' -' ' &'/ 00'&+*, '<+ *' .'?+*(6 '7* ' &'* .'7+ .' .' <<*+7

9%'? '&*, *'6+7 .' &' &', 7* ' -'07 ' ',+*', ' $ 0' &')& *-&'3+7* 6 '60&'/' ('<+', * & *'-a8 ' # , . * + ' .' ' ?'.* 0&'+,' '-'<*, D .'/'&' *.' +,')+ ,' +' &', 6'< *<+,'? &' +& *'/' *': 6' E 6 + '?& -&'? *'/+ &'* .' & '&' - 4,+*6 * '07 ' '/'&'= *.'+,' ,* & *? &'&'+& *' +?'07 ' '/' *' : 6'E 6 + '? *'+*. *.' +'/' 0 '* .'?C -&'/ 0' ;.+ '&'7+ '? ' (.',' &', ,,'+,' &, ' 7+' - '+*' &', -+ .' 9&+ .'/' (' +'-+ , . * + 'Q' - ** .',+*' &', -< .' 4 ;

4 4 $ $

'3123'31-'62%5'6-4"75' 243' 12!!' /-'31-'6%+63'31%7# 4/7@ , . *.' ' &' G,'6 0' .' &'&'- ,'+,' &'6 , *' ?&+'? *'< ',*+6' & */ , - ',+*' +' (0' &' ,'64&' *' '/'-+ , . *.' ' &', -+ .'< - '

$ $

'243'6"+'+-584%7# 31-'607-,'@D' 6"+628!38+-,'92,' 2#2%7-'+-25' 275' "+5-+-5' 3"' /-' 4"76%5-+-5' %7' 31-' 31%+5' :!24-' 23' 31/'7%^3' . --3%7# 5$"8+7-5'3%!!' 87520'7%^3'23'3-7'2'4!"2S' &

'JC8' G 7

9 +'- 0' &'5+ ': 6'1 8)+66 , + *', '&' /.*0&'+,'9 7 */ *7 ',?+*' .4, /,- 7.' &'+ &'+,' .0' -' .' ++(' &'+ &'+,' * 6

4' E9' 8 , ')+66 , + *' -F .' &'1, ' &' &' *7 ',-+ , '& .'+*. *.' &',+*- ' . *' &'-+66 .'+,'&' '1 * ' +,' *0 ' .'- .' ' * 06 '+,'.* 0+ ',*+6' &' +*&'+,'1 0 .'? &' *' +&'= *'*06 '+,'&+*, ',*+6' C ,+' +'-+6'66 . '+' * 0' .'&.'07 '+*. *' +'&')+66 . *'+,'&', /'6 ' '&'?, *'9& * '+'6 , *' Q'&7'&*'6 '* . '+'6 *-&'+'&',*,' .7 * 6 ' .' (? ' &' &'&.'07 '? ** .'+'/* 0'+R*' '&' < , 0 /+ '+,,'&'J+*&'+7*' +'8+?&, ', .'0G- < 0' , 0 l4/+ ' '&'* ,< - 7'<+*',+*' * ,<+* 0' +,'< , 0 * ' .'<*+<+, .'&' &'6 0&'-+ , . *?& ', *&*?', ' +'/' c .+ ',+*', <<* , &0' &'*/ ' . *' &'-+66 .'+,'&'R , ' -+ '+,' ' . ' . - * 0' &'< -'+,'&'C 0.+6' '&' <* , '8 - *' :& * <+' '-'? '+*. *.' +'/' .* ? ' &+*S 0' &'=+*.'+,'& ' 8 , ' *7 ')+ &, ' +'- 4' +0 &*' &'&* +*' .', -/' 6 ': &' &'C 0.+6

? &' &*/ ,'&+*, 'Q' *6 '+*', -&' 6/*'+,' &6' .',*+<' , -&'< - ' ' &',& ' &(', '? &' '. '<*+7, + ' .' +' .6 , * ' &'+ &'$+,' D .0 -' +', -&'< *,+ ' ' &' < , ' .' +', , '&'&+*, '+,', -&' '&', .'. ,, - .' .' &'-'+'-+ '+ '.6 0' &'<* , ' G0 '?& -&'/ 0' * .' '? '< '+'7+ ' .' <<*+7 ' .' &' .8+ * .' ' : . ,. ' G' 8' '-+ (

' 8' : ' $

J%15- 0' &'5+ '&' 8 , ')+66 , + *' -F .' &'1, ' &'&' . *',*+6'3 * ' 8+*' C '?&+'? ' +?' ' * 0'&' . *, ++.' &'+,'/' &' ' 0 .06 '? &' &'* / ' +'/', *' ,'T ' '? ' ',*,'* <+* .' .' &'&' &.'* - 7.' ,+*6 + ',*+6' &'< - ' &'&'R ,-+ '+,' ' .'? '(.' ' &', 0&'8%+' &'0* *'., .7 0' * 6 .'+'&*', .' .'07 ' ' *'. * -'/' '+,'& *' +,>-*' +'&' 0,* '+,' *&' +', - *',+6'6 ' '&' + 6',+*' & *' ,'?& -&': _'* .' '4

%E1I' &'1, '<*+- .' +'-+ , . *' &' -'07 ' 4,+*' , 0' &')& *-&'3+7* 6 ' .' &' -',+*6 * '<* , .' /' *': 6'E 6 + ',+*'* <+ 0' &'6 , *'. <* 7.' ,+*' +'-+ ,+*6 0' +'<* -' , -'&',*,'+, *'9 9'? ' 0 '07 ' '/'& 6'? &' 6 .6 ' .'* .' .', *' ,+6',6 & *' 6 .6 '< ' +'&'7+ ' .' <<*+7

9)%',+*' *, +* 0' &' *,/ * ' , *' +'&')& *-&

JT5)E' '/' '-'+,' &'<* , ' * 6 '* 7' +' .' '<*+, - + '+,' &') 6'+,'5 0&'* -' .' &' < * +* '+,')& *-&'+,, -'/+7'<*,/ *' ' /+ ,& .' .' &' 6 ' , *'+,' &'<* ,/ * '< *,? , + ' -' &', *, +,' *'(PN[('& 7'/ '. <*'7 .'+,' &*')& *-&'+*'/ ,& .' ,+*' +'-+ ,+*6 0'+'<* -' +'-+6< 0'? &'&'-+ *, '+,' &' 6 '& 7',+* &? &',* -- ,' +' &*')& *-& '%& ' & 6 '<* , 8 ' G *-,' &' , * ' ' &, '< *+-& '? &+ ' ' ?'- ' & * +' .' +?'& 6'+'/* (' .' 8+'&' /, - ' .', < .'& * +'/ + 0 0' .'&',+*' &'& ' -*+<' : ' .'66 . ' +' *' +'&')& *-&' .'6 , ' ?& *'&')& *-& ' *'7 - ' .',' & '/' +'7 - ' & ' & *' *'& * +' '. - * .' +'/'&'& , 4+,'&'/ , - ' .' , < .'. ' .'< /',+*' -& & ,' G',+*'&'& , ' *' 66 . '<*+- . 0'/ ? G' :&, . .' -& 6 ,' . - * 0'& '&'<* , ' - 6/ '9& '&7'*0&' +'&'+& *' &, '+,'&', < .' .'/ , - '< /',+*'&': &, . ' ,' $/ <,' .' +'&' ,, -'&' &', ' , *'& '6 ?7 &' +' E+<' +*'& . * - ' ' * 0' 66 . ' +' & *' -&60 ' &'<* , ' - 6/ ' ', -&')& *-& ' *'& * /' <<+ .' <+ ' 6 + '& *+,' +'. , ,',*+6' & *' ,* ' ' &, ' < *+-& .' +'* 6+7' & 6, 7',*+6' & 6 ,' .'0 /' & * +'/ + 0 0'/ ? G' .' *, 6 ' G' +'-+6' & ' &'<* ,/ * ' , *',+*6 * '< '+ ' 6 ' *' < - /' & * +' .' <<+ '&' *7 ')+ , ' +', ' &' .-'< ' Z G - + 0' ' $

' 1%9%92 I 1'? '+,, * .' +'/'-+ , . * .'/'&'1, '<* H , .'<'& ' 8 , ')+66 , + *' .' &'1, ' '/ & ,' +,'&'6 , *'?&+'? *'. <* 7.' ' &' *'9 :9',+*4' +' (0' &' ,'-* 7 0' & ' 0&'/'* <+ .' +' &' *')& *-&' N <+'& *. ', /6 , . ' +' &'3+7 * 6 '?& -&'? '7 . '.

* '%&(' $'% &'(& +'(&((*3 !

/'% &'$* (%'/ 0* & %' /'1*)'2*00* +'3'&&'

$ 4

0+& 7' %'&+* ') 40 / *0', 4' + ,

'+)*' *4+

' ' K;>8ƒ*

0' 0

/ & (' ' ' !# ' ?<<! ?= ;!8 < '#B '& ;8 T?!'
; E!?; '#?' K# @ '0%B ' ?'' @ ƒ ' %B ' /;?# !# #?= 'D '#B '
& ;8 '?!'(?C#B ;8 = ' A =!# ƒ8#B '& ;8 'D !?; 'B <' = '0?E#B =' '
9 A =!# ƒ8 #B '& ;8 ' !# ;' (#; #B<?; ' = ' D !?; ' B <' #'#B '
@ ' =A'?!'#B ' ?ƒ8'?D @#?= ' A =!# (;'J < ' + 8;><K8'#B #
B '@?C8'=?#D ' ?<<! ?= ;'!?;'#B '!B>; '?!' ; 'D @ C '#B ; '
E ' '@?<<! ?= '!?;'#B '0 ; '?!' ?E ƒ8 ='/;?# !# #?= ' A =!#
' CAB' 1 == >'D =A' @ ƒ8 '!?;'#B 'DC;AB'?!' (# ;8 =A' A ='='
D '#B '0 ; '?! ?E!#?C=' D @# 'D '(;' 2 ƒ8 <' < 8#?C='
A =!# (;'/ #; @'" C;; >'#B # (#; =; E ;' '=?# ?> '(;'J?B='
+ 8;><K8'#B ;' ?<<! A= ;'D =Aƒ 8>

& %* &' < ' D '#B ' +C" '?!' 3C =8D ;; ' = =# #B '
K # =#?!'#B '+C" '?!' C@8 CAB' = 'D ' +CD '[< 8#?C#' =#
K;? C@#?= ' ?!' K # =#' D !?; ' K ;!?=' D '# # ; ' ='#B ' ?ƒ8'
%B ' ?<<! ?='=! ?C; '?!'#B '0?; ' 8 ƒ8; '#C>!' %B '
'+C" '?!' < 8#?C='= '3C =8D ;!>4 ;NC !'?!' #B?ƒ84 & ;8 '
?!' 0=8#BA?E' (?C#B !NC ' ƒ8 K ;4 ;? 8D=4 !@@!C=# ?!'
% ;D #4 0?; '+C!!C' C#B ;! ?; '#B '0?; 'J !#@' 8 ;'"#?'# " '
#B 'll? #B '= F# > # 'K?='K;? C@#?='?!'#B 'K # =# ƒ8 #B 'K ;L
!?='D !?; '< =#?=# #??'"#B '?#B '?!' ' A =@' = ' / ;8 g
'< =# F@ K#'#B '! 10?; 'JC!#@' 8 ;"

*%'llC# ?D @# '#B # #B ' ? #B '?!'#B ! ' ?<; ! ?= ;' A =!#
EB?! ' 8 @#?=' ?D @#?='E ;'< ' # ;'=?# #?'D ' =## '
#?'# " '#B '? #B '# ƒ8 #B ' 8 #>'? '#B ;' 8 @#?='E ;' !@C!#
D !?; ' ' << ##

(2& &+' #B # ;;B ;' #B ;' E ;' ?CD8' +?<<! ?='
8 A ƒ8>'; #C;= '= #B ;'K ;# '@?C8'D ' < ## '! ƒ8 #B 'K; ! ;L
=@'E ;' !@C' DC# EB ;' #B ;'E '?=8>'?='8 A ƒ8 ?<< !L
?='!CD!@;> 'D '#B ' 8 ;"#B 'K ;!?=' 79 < ## ' = ' =>'
?D @#?=' A =!# B ' 8 @#?=' ';! ; ' 'E ' K; @# W ' ='
#B '@ @'?!'(;'/ #; @'" C;; >' ==?'8 (ƒ 7

7

&/0 &+'#B #B ' 8 ;'"D =A'; NC>% 'D 'E >[?!' !#!#;C< =#
='; !C! =A' # '#B '! < '@ @' '#B # =' ?#B ;' ?=>=! ?='
B 'D ='!#?K ' ='#B ; !?; ' ='!C@B' '@ @'= #B ;' K ;# '@ ='
D ' < ## '# ƒ8 #B '> 8 # '?!'#B ' 8 @#?='D '#;> 4 #B ' # ;g
< = # ?=' 8 > '# ƒ8 = F# < # =A

$

J < 'J?B=!#?C;'?!' ?;B '!?;'#B '!8 >;'?! +C=!; ' ='K8 @'
0?!(;'J?B='+ 8A ƒ84 (;l+C=@ =' <KD ƒ84 #B '0 ;'?!' 8 @"g
< = =4 (;') ?;A ' ?=;?4 + ' #8B 4 lJ < '0 E#B ;'
='K8 @'D!' J?8='(8 AB'!?;'#B ' DC;AB'?!' =A#?C='#??'"#B '
? #B '?!' ' A =@' = '/ ;8 < =# 4

% &'T?D @#?=' ; = E ' A =!# (;' / #; @'" C;; >'#B # B '
?C8'=?#D ' < ## ' = ' !# ;' D #KC#'#?'#B ' ?# TK;?@ l?;'
8 >'@ ;; '#?'K;?@ ' T

*%'D =a'<? '#B # (;'H/ #; @'" C>; >' ?<<! ?='< AB#D '
; ' = 'D =A'; ' #E '?D @# '#B # (;'/ #; @'" C;; >'2 '
=?# 'D';A ! '#B '#><' ?!'#B ' 8 @#?!8' = '!?@?C8'=?#D '
!C!# = ' = ' ='#B '8>" '@ @'E ' D ;; '!;?<'D =A' '< <L
D ;' =' '!?;< ;' / ;8 < =# ==?'* (8'D =A'@B?! ='!?;'#B '
DC;AB' !7(8" ;"

(2& &+'#B #B 'E ' ; <? ' =' #B '/ ;8 < =#!?;! '
D @ C 'B 'E Y=?# =' @#C ƒ8#; ! @# =A'< ; B =# = '#B '@?=9'
#; ;'K; @#@'B #B'D ='!C!# = ' =' < =>'@ @ ' ='#B ' ?=9'
=#?='=' =' #B ' @C;; =#'/ ;8 < =# '#?'K ;!?= 'K; ! =#8>'
< <D ;' = '#B '8 E' EB ;CK?=' =>'!C@B'?D @#?=' '!?C= 'll
' NC ƒ8>' A =!#=?#;! @# =A'< ;@B =# ' ' A =!#!C@Bg ' ;'
=?#D=;A ! ' = '!?'<C!# #B ;'D '# " ='@?<K8 F8>' ='D?#B'@ @ '
?;'; !@# 9='D?#B'@ @ ' %B '< ## ;'8 ' !> ' ll P

*('!# ' ?<<! ?=;' < '9'!K @B'#?'#B '0/ ;8 < =#
='#B =9 ?C;= '# ƒ8 %CA! >'=F# ##='@K '" = ' "' K;?g
@ ! ' = '< ## ;'@?=#=C '#''#B ##><' [4

+C" ' < 8#?C='<? '#B ##B ' ?<<! ?=;'A; @'B!'!K @B'
< AB#D 'K; =# '9

0 SS' K;>8ƒ

)*'/; > ;'! ' %B ' ?ƒ8'@ ƒ8 9

% &'1=A'8 ## % #?'9#B '/ ;8 < =# #C>!';' 7 %B ;'E ' '
A; # D #@?=@ ;==A'<>'0?; ' ;='='#B 'E?; =A'?!'B l
K # =# DC# ='#B ' = 'B 'E ' < ## ' = ' ' ?<<! ?='!?;'
lT ;@BD 8' (=@8 ;'!?;' 2 "' %B '0?; '/; ! =#7< ' '
!K @B'%B '0?; ' ;= 'K # =#; '%B ' ?@ #!?;'#B '1=A'
=#; !#?D @# '#B ##B 'K # =# !# ;'#B ' @ '?!' ?D ;#0?; '
;='2 '@?=@ ' ='! ?C;'?!'0?; ') ?;A ' C;; >' = '
#B ;!?; 'B ' !>; '#?''=?E9 !'#B 'K ;!?='8 < =A'#B 'B?=?;'?!'
#B 'K # =#E '0?; ') ?;A ' = ' !' #E ' = '?#B ;'!?='?!'#B '
;NC !'?!' #B?ƒ8 B '@?C8'=?# < '#B 'B?=?;' 8D #< ;> 'll
!? 0 >' ;A ; #l ;= ' CAB# ;'#?'0?; ' ?D ;# # ƒ8 0?; '
) ?;A ' C;; >' !# ' ='#B 'B?=?;' 3?< = # <'D ' @ !

(2& &+'#B #D>'#B '@8 C!' !@ =#'< ; <?=?'D #C F#
0?; ') ?;A ' = '0 ' ;A ; #'#B 'B?=?;' @?= > '#?' =>'
!?='?!'#B ' ;NC '?!' #B?ƒ8 EB?' < ;; '0 ' ;A ; #DC#
0?; '2 ƒ8 <'!?='#?'#B ' ;NC '?!' #B?ƒ8 B =A'=?E'< ;> '
'#B '0 'B ' B #B'#B ' ; AB#'#?'#B 'K # =# 8D #0?; ') ?;A

)+6 6 '$? * ' 0 ,' ?' G- <' & ' * - ' .',+'-+ .' +'/ ' <<+ .' ' &' -' ' &' * - ' ? ' * ,- . .'Q' . , e .' & ' & '7+ '< ,' & * ' ,' , +* '6 0&'/ ' + -& .

1 1 =A1 ' ' & ' & ' C 0' & .' 0 7 ' , * - + ' +'. < , ' ? &' & ')+6 6 ' ' +' & ' <+ ' .' <* 7 + , ' ' -' 6 0&'/ ' 6 . ' +' & ' , , -

' D =A1 ' ' & ' & ' <*+- .+*' ? ' +' , - * ' ' & ' -' ? ' 6< ' * ,- . .

' 0 0

2R1 ' ' & ' +' <*+- .' ')& *-&43+7 * 6 ' ' < ' * 6 ' .' & * <+ ' ' .* 0&',+*' ' -' ? ' * .' .8+ * .' ' % , . ' ' ' - + (' .' ' <*+- , ' .' #6 *'-+ .' ' & ' 6

' <* ' g' L

%E 1' * *', .' %& '5+ ' - .

%E 1' < ' ', 7+ *' +,' & '. - ,' *(' 1 * '+,' =+? & ' * .'. .' & ', G '+,' '9 2' .' & ' & '< ' ', 7+ *' +,' 5+/ *' +?' 1 * '+,'=+? & ' +' :' * .' * , 0' & ' ,+*6 *' -& * *' .'+,' ?'0 7 0' +' & 6' & '<* - . - '+,' & ' , *,' < ' ' *' +' *(' 1 * '+,' =+? & ' .' 5 . / *' & ',+ ' .' ')+ ,' +,' =+? & ' . ,' . 0& *' +' & 6' .' / ' <*+7=, + ' *' 6+ & *' +' & ' 1 *

2R1 ' ' ,' 6 ' / ' +? .' / ,+*' 8 , , 0' ' & ' 6 *' & ' & ' 1 * ' -+ - * .' 6 ' ,77 *' .' < * - * ' & ' 1 * ' +,' 5+G/ *0&' ?&+, ' +* ' ' . ,+ 7 .' .' & ' 1 * ' +,' 3 +? ' ?&+' & & +' - * +* ' .' ,< - ' , 0' & ' 6 *' ? ' . *' & '-+ . * + '+,' & ' * - ' +' ' .' ' *H 6 '* 6 .' +' & '. *6 + '+,' & ' & ' C 0

I : 1 5 1 ' ' & ' & ' < ' ? &' & ' <*+N' . - .' ' & '/ 0 0' +,' & ' , + ' ' & '- 0' +,' & ' 5+ ' .' & ' ,' . ' & , ' 1 * ' -+ - * .' +*. * .' +' ,? *' ' & ' . ' ? &' - * , - 6 ' & ' + & *? ' & ' 1 * ' &+ .' / ' * (.' --+*. 0' +' & ',*,' <

5 1 =A1 ' ' . ' ' ,' <*+- .+*' + 0&' +' / ' . .' ' ' + ' ? * ' , .'+*' ' ' ? * ' F * .' ,' & * ' ? ' ' * , * - ' +' & ' C 0' ,' & * ' ? * ' ' . *6 + ' / ' & ' C 0' .' ,' & ' C 0' ?&+' + :' ' + 0&' + ' +'. *6 ' ' B

' D =A1 ' ' & ' & ' * , * - ' ,' ' ? ' ? ' < *,+ ' .' ' G< * .' .' & ' <*+- , '7+ .' &.' & ' 1 * ' +?' * ? ' & ' #. 6 ' ?& -&' & ' , , ' + 4 / ,+* ' & ' * 6 ' .' ?& -&' & ' ?+ .' ? 0 ' * , *' & ' 8 , ' ,' & ' ? * ' <* , ' .' & ' 1 * '+,' (*(' <+<' <*+. - + '+,' ' ' < ' ? &' & ' <* H - . - ' ? ' * (.' --+*. 0 ' + ? & . 0' +,' & ' +<<+, ' B + '+,' & ' 1 * '+,' %? .

%5 9 =A1 ' ' & ' & ' 1 * '+,' (*(' ? ' 7 *' + '+,' <+, ,' + ',+*' & ' ' ('+,' E 6 + '& ' , & *' & .' +' ,' +,' & ' ' , *' & ' <*+6+ + ' .' & ' 1 * ',+',++ ' ' & ' & .' +-- ' ' ,+ '- 6 .' & ' <* - . -

3 5 9 1 ' ' +' & ' & ' 1 * ' -+ - * .' .' . *' +* '+*' - * H +* ' /' - .' +' << *' / ,+* ' & ' * 6 ' +' ,? *' +' & ' 1 * '+,'=+? & ' - <' +,' <* - . - ' & ' . ',/ * ' . ' .' ? ** .' 0* .' / ' & ' 8 , ' & 0&')+6 6 , + *' .' 1, '+,' * 6 ' +' - ' & ' --+*. 0

I1' + & *' .* 0&' +,' ' - ',+*' , 0')& *-&' 3+7 * 6 ' ' : '* .' , ' E ' 8 , ')+6 6 , + *' 6+7 .' & ' '+ & *' .* 0& '-+ - * 0' & ')& *-&' 6 0&' / '0 7 ' ' +' & '- *(

.' +'<*+- .' +' 6 ' ')+6 6 ',+*' - + ' .' '/ 0' 6+7 .' & ' & ' - ',+*' ,* .+6 ' +,' ,< -&' 6 0&' <* - .' .' / 0' < ' +' & ' F , + ' ?& & *')+6 6 ',+*' - + '+*' & ' - ',+*' ,* .+6 ' +,' ,< -&' 9&+ .' <* - .') ** .' & ' ')+6 6 ' 9&+ .' <* - .' .' / 0' 6+7 .' & ' , 0' & ' 6 *' +,' - + ' ? ' +' 0* ' / ' , -&' ' 6 0&' / ' . - . .' ' < ' * 6 ' .' / 0' < ' +' & ' F , + ' ?& & *' +4 <*+- .' +' -+ , . *' & ' - + ' ' < ' * 6 ' +*' / ' ')+6 6 ') ** .' +' <*+- .' +' % ' -+ . * + ' +,' & 6' / ' ')+6 6 ' .' & * ' / 0' ' F , + ' < ' ?& & *' & ')+6 6 ' -&+, ' / ' & ' 0' +,' & ' 1, ' &+ .' / ' -+ H .' +*' ' ?' + '!-&+, ') ** .' & ' ' ?' + ' &+ .' / ' -&+, ' %& ' * 6 4' .8+ * .' D' %& *, . '$ ' ' - + (' .' ' <*+- , ' .' 6 * ' -+ .' ' & ' 6

'] ' A' ,

5 A1 5 ', .' %& '5+ ' - .

' %1 I %' <*+. - .' +' *' 6 ' ' * 6< ' +,' * ' +' / 4' R , + ' *

%E 1' R , + ' * ' < ' * .' .' & ' ++(& ' + & '+,' D .0 - ' .' * 6

2 1' +,' & ' +/ ' & 7 0' * 6+7 .' +' & ' *' &+D, ' !' 6 (' & ' - + '+,' & *' 6 / *',+*' & ')+6 6 '+,' 1 - + ' .' ' / 0' F ** .' & ' & '. .' * 6+7 ' -+ * * ' +' & ' <* - - '+,' & ')/ 7 + ' .' ? &+ ' '+*. *' +,' & ' &+ , ' .' / 0' ,? * .' & ' ',+*6 *' 6 ' & ' * - '?& -&' ? ' & ' + ')+6 6 ' +,' * 6 ' -+ , ' / ' - + ' ? ' -&+, ' / ' & ' +/ ' , *' * 6+7 0' +' & ' *' &+ , ' .' ' 0* ' < * '+,' & ' +/ '& 7 0' -+ .' ' & *' < - ' & ', ,'+,' & '&+ ' ? ' (+? ' ' & ' 6 *' .' & '=+*.' > & R ' / 0', ' / ' & ')+6 6 , + * '0* - ' +' -F ', - ' +,' & ' * ' ' ? * '* 6+7 .' * * ' * ' ' & ', ' +,' & ' * ' ' ? ' & *' <* 7 .0 ' +' - ' ' & ' *' &+ , ' .' & , <+ ' / 0' < ' +' & ' F , + ' ?& &0*' & ' 6 ' +,' & ' - + ' & ' < * '+*' +/ , ' 9&+ .', ' ' & '&+ , '+*' * *&+7 ' +' & ' *' &+ , '- ** .' & ' & ' +/ '9&+ .', ' ' & '&+ , ' %& ' * 6 ' .8+ * .' ' & '6+**+?' ' ' '- + (' .' ' 6 * ' .'<*+- , '-+ ' .' ' & ' 6

' 8' 9

5 A1 5 ', .' %& '5+ ' - .'

' ('E 6 + ' ' 6 '+,' & ' *'-+6< .'+,' & ' . - e' G<* , 2 ' , .' / ' '0 6 ' M +? * &0' , *. ' +' & ' . ,&+ +*' +,' & ' *' .'-* 7 .' & ' & '0 6 ' 6 0&' / ' * 6+7 .' ' & '6 *' ? * ' F * .' +'[%+' ?& -&' + ' ? * &' * < .' & ' ,' ' & 0' & .' - < .' & 6' ' & ' . -+ * ' .' & ' ,' & * ' ? * ' ' . 0 ' & */ ' 0 ,' & ' I +/ . ' ' ? ' + ' + ' +*' + '+,' ' 7 D' . 0 ' .' & ' & ' ? ' +* ',+*' ' .' / 00 .' & 6' < *.+ '%& * , *' ' ('E 6 H + ' D*0 .',+*' +6 ' 6 ' & ' ?& ' ? ' 6 *(.' ' +' & '7+ ' & ' < ' ?& ' & ' I +/ ' ? * ' / ' 6 0&' / ' G< 0 .' + '+,' & ' 00' E ' 8 , ')+6 6 , + *' . , * .' & ' & ! ' 6 *' 6 0&' $ / ' .' , . ' .' +' <*+7 .' +' 8 +* ' ? 0& ' 6 * ', -+ . .' / ' & ' C 0' .7+- B & ', 0' ' ? ' 0* .' & ' + & 0' ? ', .' +,' . , 0 ' +' . < * 0 ' & ' * 0 '+*' & *' <* , * - ' +' & 7 ' & ', *,' < - ' ' -H + ' / ' + ' -+ - * 0' & ' 6 *' +,' '9* 40* - ' 0* .' +' ' & ' 6 *',

%E 1' <*+- , '+,' * ,+ ' - .' &* ' ' & ' / ' & '/ ** .' & '0* '0 '+,' & '&+ , '7 8' ' 7 .' 3* & 6' /*+ & *' .' * ' +' & '. - ,' +& 'R , + '+,' ' . 'Q-' -+ ,+*6 ' +' & ' * I'

?>

.' G - + '. 'C 0' .7+- '-* 7 .' &' ? ** .' +,' *H
6 '+'& 6',+** , 0' &'<*+- ,'+,' * ,+ 2' 0 6,' &',+*'
, .' < *,+ ' 6 0&' / ' * .' ?& -&' ? ' --+*. 0 '.+ ' .'
&'< *,+ '- .'? *' 0 '- .' '6 *',+*, .' &' .7+'
'< ,',* ' *' > *' , *' &' '- 0' &' .7+- '-* 7 .'
&' &' / '6 0&' / ' * .'?& -&' ? ' --+*. 0 '.+ ' ,'
'= 4

%E1' =+*.') *.*+,' <*+ , .' & ' '<*+- .+*' 0 ,' &''
1 * '+,' > -& '6 0&' +'<* 8 .0 '& ' * '+,' '%&'
/ ' 0 '* .' '1 0 &' .'3 +*0 '20 7 ' .': 6'
3 +7 *'& * .' .'&'? , '"/ 0 - .'&' G - + '
? *'* .' '& *'<* , -'3 +*0 '20 7 '& * .' .'3 +*0 '
20 7 '+,' I ?* ' .' *-(' 3+-(' ? '/ 0',+ 6 '
,?+* '. <+ .' '&' G - + ', /,-* 7 .' / '& 6'? *'
* ? '.+ '-+ ,+*6h' +'& ' +*' +,'& ' G - + '* .' +
& 6'& ' G - + ;', /,-* 7 .'/ ': f6'3 +7 *'& * $.' .'
6 '& .' .' 6 ': (*'? , '/ 0' * .' '& *
<* , -'& '. <+ . <+ '& '7 * '+,'& ' G - +

%E1' =+*.' .7+- '. - * .' & '& '?+ .' , ,' +', * & *' '
%& *,. ' G' .'?+ .' ,,G' & ' 6 '+,'/+ &'+,' &'< '
.'? , '+'& '0* '0 '+,'& '&+ , ' .'+'& '-*+,'
,+*' & *', *& *'- * , - + ' .' '* ,< -' ?+'+,'& '?' ,'
#& 7'+ ' << * .'-* 7 .' ', -+ .'. 0 -' 0 ,' &'* ,'
?& -&' ? ' --+*. 0 '0* .' %& ' * 6 '.8+ * .4'
% . ' ' '-+ (' .' '<*F- , ' .'6 *'-+ .

' 8

5 A15 ', .' %& '5+ '- D .'

'=1%%15'?* '/ ' *'%&+6 '=7 0, +)+66 . *'+,'
&',+*- ' ' &' I+*&'+'3 * ' ('07 0' ' --+6<'
+,'&'. , '+,'&'* / ' ')*+6. '? &' ,'+,', -&'+,'&'
+,, - ' '? *'& 'R < ' .' ('<*,+ *

')15%9J9) %'+,'&'=+*.'9 .+* ' . <+, + '* .' .'
&' G- ,' .6 .

2R1''' & ' *' *-(' -+ ' / ' .6 .',+*' &'9& *'+,
(*(

2R1''' & ' '7 0' -+ - * 0' &' *' / 0'+*. * .'
+', ' ' &'&+ ,' &' 6 '+,'& ' - + '+,'& ')+66 '
,+*' &'-+ *7 * .' - + '/ ' ,'+ '+,'& ' '+*5 -+*. '
+,' * 6

2R1''? &+ ' 6 + 0' &',+*6 *'7+ ' & ' &' * H
6 '6 0&'<*+- .' +' & '<+ ' '& '6 *' .'? '+,'
- 0' &')+66 ',+*' - + '?& -&' 6 ' (' ,, -' ' +'
&'6 *'+,' - + '+,'& ')+66 '?& *' ' ' ' +'; +'
&' *' +')0 ,' ?& & *' ' '6+,' 0* / ' +'& ' * '+''
-+ ' ' &'&+ ,'+*' * 6+7 '& ' 6 '+,'& ' - 0' &'
)+66 '& ' --+*. 0 '& '+*. *'+,'& '&+ ,'6 '<*+- .

3591''' +' & ' & '5 -+*. ', '/ '-+ , . * .' .' '4, 8'
6 .'+*. * 0' &'6 &+.'+,'-&+ ,60')+66 ',+*' &', *'
+? &, . 0'+,'& '7+ '& ',*,'+,' ' ,'Q' '* ,+ + '+,'
&'=+*.')+ 6 , + *'Q'1, '. ? '* .'-'7+ .' 6+ ,

%E151'/ 0' '6 + ' & ' <+' & '<*+6+ + '+,' *
6 ' ' * 6< '+,' *' +'/ 'R , + '& '= *.'+,'5+? '
6 0&'/ ' .6 .'

I :151''' & '5+? '-+ .' +'/ ' .6 .'/ 0'+ '
R+ .'/ ' '?& -&' ' ',6 ' 6/ *' .' +', 0 .'/ ' &'
- *(' .'& *' *' ,+'+& *' ,+*6 ',+' & ' & *'+ 0&' +'
&' '+*. *' +'& ',& *',+*' ?' - +

' J*'(' ' ' , =1 1I%

35 1 Z' & '& *'/ ' '+*. *'+,' * 6 ',+*' ?' -'
+ '+,'&'9& *'+,' * '9'/ 0' 6+7 .' & '& *'/ ' '
+*. *'+,' * 6 ' & '& ' -+*'+,'> **+ '/'+*. * .' +'
(8&'+ &'+,' D .0 -

I :151''' & '& '<*7 .0'+,' - + ' '/ ' '<*7 '
0&' .' '< &'+,'&', &+.' .' .+&' +' ' . *' '
< / -' *,' .', -&' *,*- + ' *'/ ' ' ,*- + ' <+ '
<*7 '*0& ' .'& *,+*'6+7 .'& '& '6 '/ ' .', .' .'
& ' '&'6 ' 6 '& *'/ ' '+*. *',+*' ?' - + ',+*'
', ,'+,' * 0' .',' '/ '&+ 0&' - , *' ' -'6 '
/ '<* < * .',+*' * 0 0' & '6 *'?& -&'6 ' (' ,, -'
/ ,+*'&'. '+,' - +

2R1''' & '& '-' '*, . 0' &' * - '/ '* .

%E1' -',+*' / * '+,',< -&' * .' ,+' &' -',+*' *, . 0'
+,'&' * - '* .'/+&' &',+*, .' -'* .'&', -+ .' 6

%E1'7+ '+,'&' ,' , + '+,' * 6 ' '&' * - '
* .

2R1''' & '& '=+*.')+66, + *' & '& *'/ ' ' ,? *'
+'&'C 0' *' .'& '&')+66, + *'+,'&'50, *'
+,, -'/* 0' '.* 0& '& *+,'&' G'. ': & -&'? ' --+*.H
0 '+*. * .' .'& ' * 6 '.8+ * .' D'%& *,. ' '
'-+ (' .' '<*+- , ' .'6 *'-+ .

L' 8$ 9

5 A15 ' .'5+ '- .

'51 51 1I% %92I1' * .',+*' *' *-(' -+ +,'%& '
, '?& '& ')+66, + ' + 0&' +'/ ', , .' .' & ')+6'
6, + ' +'& '=+*.' & <& 0&'* 8 - .

%E1' -' '& ' * - ',+*6 * '* .'? ' & '. ' 0 '
* .' .' '/ 0' 6+7 .' +'<*+- .', *,' +'& ' -' ',* .+6h'
+,',< -&'& ' 8 ')+66, + *' . - * .' & '& '? ' +'
, * - .' +' + -&' & 'R+ ' '& '* , . 0' +,' & ' * - '
<, ', ', + ' .' & '7+ ' / 0', .'?& & *' +'<*+- .'
+'& '.* 0&' +?'+,, * .'* - . 0' & ' * - '+*' +'& ' -'
,+*',* .+6 '+,',< -&') ** .' +'<*+- .' +'& '<* , '.* 0&'
,+*' * , . 0' & ' * -

2R1''' & '& ' ,'.* 0&'07 ' '/ '& ' 8, ')+6'
$6, + *' & ' ,' , + '6 0&' /'* .' / ,+*' & '<*+- .' +'
& '-+ . * + '+,'& '.* 0&' +?'+,, * .': & -&'? ' --+*.H
0 '* .'

= 2' '+& *'.* 0&'? '* .' .' & 'F , + '/ 0'< '
?& & *'-+ . * + '9&+ .'/ '& .'+,' & '.* 0&'07 ' '
+?'/ ' ' ('E 6 + '?& -&'? '<* , .' ,' , + '+*'
+,' &'.* 0&' +?'<* , .'/ ' &'1 * '+,' *0 ')0** .'
+'<*+- .'+' & '-+ . * + '+,'& '.* 0&'07 ' '/ ' &'
1 * '+,' *0 ' .' , *', 6 '6 . 6 < '+' & '7+ ' .'
<<*<7

%E1'C 0' *' , *? *.'* .' .' & '.* 0&'+,' ' H
,? *' & *+

%E1' -'*, . 0' &' * - ',0 .' .'<*, .'+'& ' H
8, ')+66, + *' .'+ -& .'/ '& '3* -'? &' &', < *

%E1' ,? *'+'& 'C 0' *'+'/ ', '/ ' & '6 6/ *' '
& '- *('& .

3591''' +' & ' <+' & ')+66 '+,'1 - + ' & *'/ ', 7'
+,' 7 * ' , ' .' & ' <+' & ')+66 ',+*')& *-&'3+7 * H
6 '& *'/ ', G'+,' -&' ,

9%? 6+7 .& && -, *,* .+6 +,,< -& 6 0&/ * .
.<*+- . .+ < &+ , . / 0 .0 .& && 6 *-+ .+ +/ -+ 7 . ,- , < &+ , / /)+66 . / 0 < +& &7+ ?& & * +<*+- .+ & - < &+ , +*)+66 - ** .)+66 . / 0 6+7 .& & 6 0&/ (+-+ , . * + , << +/ 07 +& * 8 , .)+66 -&/, . / 0 <*+<+, .& & 6 *6 0&/ , *, , . < * H 6 . & 6 &+.& *+, . *6 .

I :151' & & - , +, & ,+*- ? *0 . $& & , 6 *- / / .8 .)+66 . / 0 < +& F +?& & * +<*+- .<* , +) +66 4,+* & , << +* . - ** . +<*+- .<* , +& &)+66 . .,G <<+ .+/ -&+, + +-& , . & 6 8+* < *+,& ?&+D)+66 + / & F +* 6+, -&)+66

E1.* 0&+, -,+* & *+ D / *,+ * .

E1 <*+- , +, * ,+ -+ . G . * 6 .8+ * . & 6+**+? * - + (

8 9

E1 * *, . & 5+ - .

' 5 D3E +, -+ - * 0 &, . ,+*, * * . - . +*. * . +/ -+66 . & &* 1, , < * .& &; +/ +& & *&+ , & / ** * 6 . , . & / **+ * 6+7 .+ &)+66 , + *, +& -&+ , 6 6/ *+,& * * ,< - 7 1, +/ <+ &)+66 $. --+*. 0 & & ? * * <+* ./ & F *(+& &&+ ,

6 ( )+66 <<+ .+ 6 +6+**+? < - + (

E1 1 - + & +. & , *+ 6 &)& *-&3+7 * H 6 & *, * + .8+ * & , 7 . 6 & (, + <<+

E1 -+ - * 0 &*+ D / **+ * . &.. , 8* . & 6 0&/ -+ , . * . < &6*,

2R1'' & + 0&+/ -+66 .Q ? & & , , +, &+/ **+ F + /)+ , . .? 8& & / **+ . / & , 6)+66

4 ' 5 D3E +, -+ - * 0 &/ **+ * .

E1 , * + &C 0 * * . 2*. * .& & , * / -+ , . * .Q<* < * ./ &)+66 ,+* << ;

)2I 9ID1 & <*+- , +, * ,+ D . G & - + (.+*. & ? , + . & . * 6 .8+ * . & 6

8 9

5 A15 , . & 5+D - .

E1 -,+*, - * +, -* . +* 7 ,, * * +, Q-+, ,+*, < *,+ * . , * 6 . + &)+66 +,, 4 .,+*, * + / -+ , . * . / & 6 Q * <+* . & G . +, * 6

I1 -,+* & = *.+, + + * ,- .& ,+*, * * . .* 6 . + &)+66 +,,+*, * . & <*+- ,

+*. * . + / /*+ 0& / ,+* & 6 0* . + & &)+6 6 , ,+*,+*, * (+ & *<+ & * - +,& . 6 +,* 0& +* 0* 7 -

1 9 92I1 * .,+* +& ? + +* ,- .& ,+*, * * .Q & 1 * +,= ?. *. +*. * . +, & , 6 . , * + J* . G

E1 , +, & < *,+ -+ . & <*+- , +, * ,+ - . & / / ** .0* 0 / * & .7+- . - * .& & , , . 0 , , -& < *,+ 0 , ?&+6 & & . <*+/ + -+ ,+*6 +

)15 9J9) <*+. - .,+* +& P8* & 6 + 0 *+,'' *+ , /,-* / / / & & ** , *+, J+*, *+, & , . +& (0 & + &+, .0 -

E1 .7+- -* 7 .& & & - +,9 . 6 6 0&/ * . , 6 0& << * ?& & * & & ** ,& . <+? * +0 7 & + &+,. .0 -)+ +? . & G . +, * 6

E1 .7+- < , ,*+6 ' 7 .3* & 6 . * +,'' *+*,

)15 9J9) <*+. - .,+* +& 5 6, + 0 *+, -& * * -& +7 .& & * ,< - & - * , - ? + - * & & 6 0&/ -+ *+? . & ,+-+ . . +, * 6 66 . ,+ +? 0 2*. * . --+*. 0

&

E1 , +, & ? , - . ! , -& -+6< * .6 *(./ & - *(

E1 / * . & -+ -& 0 0 & .7+- * , 6 . & / ?& -& ? <+ + + * , - +, * / + (+? + & * 6 ?& & +*. * .<*+- , 0 , & 6 & - H + + . + *. * . / &)+ <, . .,+ . .+ - +, * 6 + $ (PP(.& - + && (% <H < * . * +,, -& +, & 6 * . . ,+ . . <+ & - *é Cé é

2R1'. 6 0&/ . *6 . , *?& 6 & .0 ? , /+ .+ (+?+, & <*+- 6 + +, & * 8 , C 0 : 6 Q T * <* 9 . /+ .+ / * & 6 .0 - . , * ,+ -+ . / -+66 . $. , * & <*+- 6 + $

I :151' / & .7+- & ? , ,, - , -& 6 & (+? .0 +, & <*+- 6 + 6 0& -+6 + & .0 & * / 0 + 6 <* , G ./ ? . ? . , * & <*+- 6 + ? , ,, - 6 + 07 6 + + D & .0 . & - / D .?+ .& 7 / * * ,+ 0 , & 1, &+ & C 0 .T & .+ -- < .& 3+7 * H 6 ,+ & * / 0 - 6 . / & 1, . * 0 & * 6 $ 0 ,+* & *, - * . & C 0 Q T / 0 <*+- 6 . & * , *?& 7 * - +, * ,+ ? * & .+ 0 , & 1, +* C 0 .T ? * < & / / & C 0 , * & -- < - . & *,6 , & , /8 - ? * /+ .'> & * .0 - ,*+6 , -& 6 & <*+- 6 + 6 0& -+6 + & .* (+? .0

E1 , - * 6 C 0 6 & G & <*+ - * + +, - +, * 6 * . & - * é2 BA é é* .Q & * <+ .0F. & & G - + * <*+. - . $$? * 6 / 0 +, -* 6 * . +& * 0 +/ .+ / G . - + (.0 . & & ? ** . / & - +, * 6 0 +, . +*. * 0 - + <+ . / & +? **6 .,+* - + & ? / ,+* & -* 6 -+ . & & 6 , <*+ - . <+ & . <+ <<+ ./ ? . ? 0 &+ , Q &

*, . . .' / 0' < ' +' &'7+ '?& & *' '/ '* 7 '
/ .' & ' &', - '? * ' -+66 .'? & ' '. '+,4' &'
<*+- 6 + '+,' & *' 8 ' '? '- ** .' ' &' ,, 6 7'
& ' '? '* 7 ' .' '/ 0'< ' +' &'F , + '?& & *' &'$
,+ * &'+,' ' * '? ', ,, - ' 6 '+' 6 '+' &'
.0 ' &'<*+- 6 + '+,' & *' 8 ' '? '- ** .' ' &'
, *6 7' & ' &',+*, .' 6 '? '-+6<

%E1' .7+- '-* 7 .' & ' '6 0&' / '7+ .'?& & *' &'+/8 -'
+ '<*+<+ .' 0 &,' &' 0 '+,' &' G - + '/ '* 7 '
* +'- ** .' &' &'+/8 - + '? ' +'* 7 ' .' &' G '
- + '? *'7 .' 4

%E1' .7+- ' . - * ' & '&'* * - ' &' / ' +' & , '?&+' '
* , ' /' *6 ' .'8+ .'? &' & 6' ' *6 ' , *' &' '+,'
' :' ' &'< - ' / .' +*' '+,'& 6' .' &'7+ '
/ 0', .'?& & *' &' / ' ' *, * - .' .' &' *6 '
& *+,'< * ', '.+ '? '* 7 ' +*' +' .'- ** .' ' &'
,,*6 7'& ' &' / ' '* 7

%E1' .7+- ' -* 7 .' & '= 7 ' 6 ')+ ' '+,' &'
? & , '6 0&'/ '- .'?&+' --+*. 0 ' << * 0'? ',+ 64''
',?+* *' .'< *0 .' +,'< * ' -+ , ' .'0 7'& '. <+ '
+ ' '<* , -'+,' * 6 ' .' 0 .' &', 6

' 2%92 I ' / 0' 6 . ',+*' '? ** .' +' -' '3+66 ,'
+ *',+*' &'9& * '+,' * 0' , * .' & ' &' 6+ + '? '
,+*6 * ' .', . ' ' -'6 0&' / '/*+ 0&' '+*. * 0' &'
-+*' &' 6'+,' &' - + ' +' ('&'+ &'+,' 0 -'
.' --+*. 0 ' -'? '07 ' .'* .' .'/ 0'< ' +'
&'7+ '? ' <<*+7 ' 2*. * .'& ' 6 + '/ ', ' +' '
< - '?& * ' - + ' *' +' / '6 . '+,' & ' -' .' & ' &'
+*. *' +,' * 6 ',+*' - + '/ *' +' / '-+ ,+*6' +' &'
-' ' 6'-+6 0', 6' . 6 '/ 0' /*+ 0&' ' '
+' -', , +* 0' &'<* ,, * '68 *'. .

-+66 .' +' &')+66 ',+*, 'Q',+*, * ' G- <' ' +'
? + '< + '?& -&' '. .' DJ* . ' G'-+ ,+*6' +'
&'. 7 * -'+' ? + '/D' ,'. ' 2*. * .' &' &')+6H
6 ' ('&'< + ' +' & *'-+ , . * + ' ' &'+*. *' & '
'< , .

%E1'+*. *',' * 6 ' '&')+66 '+,' << ' * .'
*+<+, .'?& & *' &', .')+66 '9&+ .'<*+- .' +'-+ , . *'
?& ' ' - , *',+*'6 -'+,' &',+*- ' ' 6'/ 0+ '
.' +'-+6 ' .' & ' ,+'/ , . ' & ', << ' & *'/ ' ,+'-+ H
, . * + ' ('+,'', << ' +' &'C 0',+*' &', <<+*' +,' &'
3+7 6 ' ' +' &'+& *' G0 - '& * +,

2R1 '' & ' &')+66 ',*,'<*+- .' +' &'6 -'+,4'
&',+*- '= ,' +' &')+66 ' +'<*+- .' ' &'6 &+.' &'
& ('6+,'-+ 7

: 55 I ''0* .' +' &', *'2,' * 0',+*' ' ?' - + '
+,'')+66, + *' +' &' * 6 ' '< - '+,' &'. - ' *'
)& * '1*(' ,' 7'%&')+66, + ' '07 ' +' 6 '
3* & 6'+,'> -(7 / 0'* 8 - .' <+' ,+*6 ' .' &'
& 7 0'/ '< + '* - .' &', 6 '$

%E1'. <+, + '+,' +&'I / ' '+& *'? ,'= 7 '
'C 6* '*06 ' '&'<*+- ,'+,' * ,+ '. < . 0'/ H
,+*' &' * 6 ' ('8<* , -'+,' &' * 6

%E1'. <+ +'+,' 6 '2/ *' '+& *? , (' '<* '
, -'+,' * 6 ' 0 0

' 52 2 ==' / ' 6 '3* & 6',+*' 6 (0'0 '<+?. *'
* 6 .' +' &')+66 '+,'1 - +

51)2 1I ''1'' +' &'%& * ' ', 7+ *'+,' &'? , '
?&+'& 7' . .' .'& 7' +*' *' +' . <+ ' '? , ',+*'
& *' G<

25 '151'' & ', -&'? , '?&+' & 7' / ' - .' .' +'
-+6< * .'/'. - .' %&' * 6 '.8+ * .' 'J* . '
' ' '.+ (' .' '6 *' .'<*+- , '-+ .

' ' 8 02

%' &'- 0'+,' &'5+D' &'1 * '+,'=+? & ? '6 *(.'
.'- .' &'5+ '+,' * 6 '/ ,+*' &'1 * '+,'5+G/ *0&'
-+ ,+*6' +' &'. -* '+,' * 6

%E1' -' ' &'> ** '* .'-+ - * 0' & -* , 0'+,'
& *'<*, + ' ' * 6 '+' &' 6/ *' +,' '. */ '
/ '& 6, 7 ' 6+ 0'&', *

2R1 ',+*' &' * ,'+,' &' I+/ '& ' +'< *,+ ' '
I+/ 6 '+*' '* <*, 0' '/ *0&'*+ ' / '.6 .' ' *H
6 ',' &'& 7'+*'* <*, ' '&+?, .'6 *('+,' * '
* ' ' &'C 0.+6'+,' -+ .' & ' *' '<*+< * '+*'
, < *+* ' &' / *0&' '/ *0 0' . ' .' & ' &'. / '
/ 0'-+ - * 0' &'* '+,' &' .. + '+' &')+66, + *'
,+*' &'9& * '& ' &', 6' '-+ ,+*6'+' &'7 + '?& */ '
& '< '-,'$.' & ' & ' .'+' .8 6 '+' &'< * - H
*'7 + '+,' &'I+/ 6 ' .' & *'7 ,, ', 0' & ' &'
<*+<+* + '? D'/ '. ,, * ' ' &',& * ' .' ? '-& 0 0'
.' & ' & * ' ' +' & ** '-+ . , . .'+' / '. . - 0' &'
* ,'+,' &'I+/ 6 ' .' & *'7 ,, ' , * '? '/ ' '7 '
+ ', ,, - '+'/ '* <*, .'/ ' D' & ' 6/ *' +,')+66 ,H
+ *' -+ . , . .'+4 &+' &'7 + ' ? * ' /+7' '
&+?, .'6 *(',+*' -&)+66, + *

I :151'' & ' '? * '& *.' +' (' ? ' &'*0&'+,' & *'
'I+/ 6 '+*' '/ *0&' / ' & '& .' +' '6 *('+,'*

1%9%92 I 1',+*' *' : 1 6' -+ '+,'E *. ' . *' 0 ,' *' 3 +*0' -C S' +,'5+, 0&',+*' * < 6 '+,' ', ' * .' '- + ' 0 ,'&8'+*. * .' + ' &* ,-+*' . '/ ,+*' &' * 6 ' ? &'-+ + ',' .

3591 '' ' & ' & * '/ ' ')+< 6 ' <<+ .'+,' &* '/ ' +,' -&'1, ' +' / '-&+, ' ' &' G'. '+,' * 6 ',+*' -+ , . *&0' &' G - + ' ' / *0&' *+ ' .' +'-+ , . *' ?& ' * 0+*+ ' ?' * ' +'/ '* ,- . .'+*' * - , .

%E1'* <+*'+,'&')+ 6 ',+*'1 - + ' '&'-+ * 7 * .' - + '+,'&', * ' +,' (*(' * .' -% .' , . ' D' &' 6 *'/ ', * & *'-+ , . * .'Q' * <+* .'/ '&')+66

%E1' -' ' &' > ** ' / 0' * .',*+6' &',+*6 *' .* 0&'* F * 0',' ,' 6& *' +,')+66, + *' +'/ ' . . .' ? ' ,'* .

2R1 '',+*' . '+,'& ' -' .' &',+*6 *' 6+ 6'* ? .' -+ - * 0' &' -+6<* & . 0' +,'&' . , ,+ '+,'I+/ 6 ' , ,'+'/ '- < / ' +'/ ' - .' ' ,+' &' &' I+/D ' / ' +? .' +'7+ '/ '<*+G ' -+ ,+*6 ' +' &'- , +6 ' .'& ' &'* -+*. '/ ', *-& .' %&' F , + ' / 0' < ' . '+*' +' $- ** .' +

2R1 '' / ' &' 'F('+,'E 6 + '?& -&' &' -* 7 .' +'/ 6 *(.' &' &' .. + L' * <*, + '+,'> ** ' (' + < - ' D' &' G' * 6 ' ' 0' 0

$ $
$ 2R1 '' & ' &' .. + '.+' +D '< - ' '&' G' , + ' '+,'&(' * 6 ' .'&' -'/ 0' 6 . .' '&' G' , + ' +,'&' * 6 '92;' --+*. 0 '* .' .'/ 0' < ' +' &' 7+ ' <<*+7 '+*' +'- ** .' <<*+7

%E1' -'-+ - * 0' &'*+ '/ **+ ' '* .' .'/ 0' 6+7 .' & ' &' -'6 0&' / ' (&+ ' & ' %') '< '?& & *' +'<*+- .'+*' . '- ** .' +'<*+- .' %&' -'+,' * 6 ' F 6' '&'*+ '/ **+ '* .' '+& *' -'+,' * 6 ' ' ', 7+ * +,'&'*+ '/ **+ '* .

2R1 '' & ' *' 6 ' 20D7 ' .' *' : 6'E 6 + 6 '/'* 6+7 .', -' 'R '+,, * .' +' / '<*+7 ' & ' & '& . / '-+ , .' ' & ' ,, * ' %& '+,, * .' +'< *0' & 6, 7 & ' & '& .' 7"*' -+ , .' +*' * - 7 .'6+ ' ' .7 / '+ ' & ' & '& .'0+ ' +? -' +'0+' +'=+ .+'? & ' . .*,' +' & *' 8, ',+*' &' / **+ ' 0* .' & ' & '6 *'+,'&' / **+ ' / '/*+ 0&' ', ,,'$ .8+ * .' '%& *, . ' ' ' '-+ (' .' / '6 6/ *,' +' /* 0' ' & *' , '+, &'$ #' 3+ ' <<+ .

' ' ' 8'

J%15' 0' &' 5+ ' &' - ',+*' &' / *0&'*+ '* .' .' & * , *' &' ** 7'* .'2/8 - .' 0 ,' &' ** 7' & ' &'R -& 0' .'? *. 0'Q' (< 0'+,'<* + '9 -+66+' +' &' / 0&' +,' / **+ ' .' * 0 '? &' &' / *0&' *+ ' .' *,+*'+ 0&' +' +'/ ' ',< - D' * ,+ ' +' * , .' &' - ' 6' ', 7+ *'+,'&' / *0&'+,'/ **+

I :151 '' & ' / *0&' +,'"/ **+ ' *' +' +/ .0 .' / ' & *' *' +'(<' <* + ' 6 ,' ' / ' / ' &'F '+,'&' -& * * '+,' * - + '+*' & ' & '& 7' & 6',+*' *'+ ' ,'Q' (' '<* + *',*+ '"&*' < * ' & ' *'+/ .0 .' +'(<' & 6'> ' &' / *0&'*+ ' *'+/ .0 .' +'(<' <* + ' .' * - 7' ' <* + *' / ' & ' 7' +'? & ' & *' 8 *,. -' + ' .'&' / **+ '*+ '/' ' ?'& .'&',+ '<+? *' +,'* .' 6<+* 0' .' G<+* 0' .'* 0',+** 0 '-+66+H . '? & ' &'C 0.+6' .'<+? *'+,', 66 *', , 0' 8,*

_ '?& .&' ?+'<+ D ' & '& 7 'F ' / ' &' -'* .'Q' & *' ,+*' 6+7 .' & ' & *' &' -'6 0&' / '< ,' +*' + & *? ' & ' '.* 0&'+,' ' -'+,, * .'6 0&' / '* .'* , 0' &' ' <* 7D .0 '+,'&' / *0&'*+ '?& -&'7* ' --+*. 0 ' ,'* .

$ 2R1 '' & ' & '6 '* * ' +' &'-+ , . * + '+,'&',*,' -'&', -+ .' -' / 0' + '6+7 .' +'6 (' &',*,' -'< ,' ?& -&' ' ,' G ,7' .' + '6 .',+6 ' ++'0* * , * -' + ' + ' &' / *0&' *+ ' / '&' -' 6' +7 .' &' &' , * +,' &' &'?&+ ' * .' / + 0' +' &'*+ '/ *0&'/ ' F , .' --+*. 0' +' &' ?

2R1 '' & ' &' G<+*' / ' +'+ '+,'&',< - '6 + .' # / ' ,+' +,' 0' - + &' * 4' .'0 * ' +'B G<+*' ' * <*+. -'/ ' .' .'&' &'*, * - + '+,'&' G<+*' / '+ '/ ', '2*.? .' +'/ ',+' 6 . .' +7 .' &' ' &' G- < + ' ,+'/ '6 + .' .'&FF' % ' &(R' ' %N &(R' : & -&' ' 0* .' +

')= D 1',+*' 6<+* 0' / ', ' .' .' ', 7+ *'+,'&' / *0&'*+ '? &' ' G- < + ' +' I+/ 6 ' .'> ** ',+*' & *'+? ' ,'6 .'* .' .' 0* .' +' +7 .4' & ' ' &' - ,'+,'6<+* + ' & *'/ ' '* , *7 + ',+*' &'86< * c' + '+,'&',< - 'Q' 6 * ',+*' 6 , - +* ' +7 .' &' &'- ,'/ ', /8+ .'. - * 0' &' &'<* , ' -' ' .'& ' >'/ '<* 8 . -'+,'&', . 0' ? ' .' - '+,' * 6 ' ' , 7+ *'+,'&'6 , - +* ' +7 .' &' ' &'- ,'+,' G4 <+* + '&'<*7 .0.'+,' +/ 6 ' .'/ ** ' +' G<+*' +' &'7 '+,'?& ' & ' 6<+*',+*' & *' +? ' ,' +7 ' & ' & *'/ ' ' / * '.,+'0* .' +' G<+*', 6+ .' ,? * .' & ' 6+ .c *', < '-+66<. ' .',+'0 / + 0' +' &'/ *0&' *+ D' +' G<+*' 0* .' & ' ' ' &'<* 7 .0'+,' +/ 6 *' .'/ **+ ' +' G<+*', 6+ .' .' ' + & *' 0++.' &+', < '-+66+. ' +' &'7 '+,'&'0++.' & ' 6<+*' +' & *' +? ' ,' .'/ 0'< ' +' &'8 , +'?& & *' +/ 6 'Q-' 6 0&' G<+*', 6+ .'/ + .' & *' +? ' ,' +*' + ') ** .' & ' & ' +/ 6 ' .'/ **+ '6 0&' +' G<+*' / + .' &'7 '+,' ?& ' & ' 6<+*',+*' & *' +? ' ,

2R1 '' & ' &' -'+,' * 6 ' ' &' *+ '-+6< ' ,+*', , 0' / '* ,- . .' ' & ' -' +7 .' & ' &'F , + ' / ' ', ' ' & ' 6 'D' / '-+ , . * .' / ' ' -' < *

2R1 '' & ' &' / *0&'+,' / **+ ' .'+& *' +? .' +' GH <+*' / ' +? .' +' 6<+*' +' & R '+,' & *' G<+*' 6 (0' ,*,' &'+,, *' +' &' / *0&'*+ ' G' +' & 6' +', ' ', -&'* ' .' +' +', ' ,' & '*, , ' +' / '+*' . *' & '* 4+,' & *' +,, *' ?& -&' ' ' <*7 .0' 0* .' +',+** 0 *' .',+'- +' / '. .' +', /8 - '*

I :151 '' & ' ,+** 0 *' < ' .+ / ' . ' .' &+' + ' / *0&' * , ,' & *'+,, *' & '- +'. ,<+,'#/ ' & '6 ,' 0+' + ' +' ' +& *' .' ,' + ' -- <' & '6 ,') ** ' & '0++. ' ? ' .' & '<+ ' ' * . '. *6 .' / ' ',+*6 *' *,+7

%E1'* ,+7 ' ' & '? *' 6 . .' 0 '* .' .' & ' -'? &' & ' 6 .6 ' .' & ' <*+- . .' +'* .' & ' *,'+,'&' -' .' & ' 6 .6 '+,'&((' % ' . . .' +' & '/ *0&'+,'/ **+ ' .'* 0 ' .' & ' & '* D' &',+** 0 '-+66+. ',+ .' / ' &',* 6 '+,'&'*+ '/ *0&' .' & ' & 46 '/ ' .' , ' 7' -+6 +. ' ? & ' &'C 0.+6' +7 .' & ' & ' ?+*.'*, . *'/ ' ,'+ ' .' G<* .',,+6',+6'+,'&',* ' 6 '+,'&'/ *0&'*+ '/ * 0',-+ ' .' +

2R1' & & ' * ,- + ' / ' +' / '0 * L' *' / '/'. <* & 5 0'Q', - * 0'? & '/ *0&' .'+& *? ' +'<*+- .'/ ', - '/ ,+*' '-+6< '8 .0 ' 0 ,' &' -+ * 7 *' -+ ,+*6' +' &' -'9 6' .' 0* .' +'9 ' &' * . 0'+,' &' ** 7' &'<+? *' +,' * .' ? & ' .'? &+ ' &'C 0.+6' '6 *', *6 + .'? ' G<*,

$01' -',+*)& *-&'3+7 * 6 '* .'%&', +* '< *' & *' +,'0 '* .' T , + .' & ' ' &'.* 0&'+,' &' -'* .' & *' ' +'6 + '+,' &' -'+,' &'0 * ' , = ' PC[V ,? * .' & ' ,'. ' & ' - ,'? '+*. * .' +' /' ,' + ' :&-&' 6 .6 '? '0 '+? .' 2*. * .' & ' '/' * .' $'&(+']) ' %&',*,' -'+,' * 6 ' ' * .' ' ,+' &',,&' -' * ' , +' &' &*.' C 0')& * ' &' -+ .'* .')* 7 .' & ' '6 '/'. - * .'&+?, *' &, ' -' * ,- . .' *'*,- . .' .'&+?', *' & 'E .', 0' &'*,-,,+' ' +', 6< ' /' ',+', *' ' & ' *0' -+ ,, '? &' &'<*+' , '* 0+' .'<* / * '3+7 * 6 ', / , .

I :151''' & '?& ' '. , * .' ' -,, *', 0' &'3+H 7 * 6 ' ' ' .'< * - *' ?' , / & 0' '* , .' ,+' &'&((' %' % ' ?'*,- . .' *'*,- . .' ', 8 *' ' &-+ , , '? &' &'3+7 * 6 ', / &.' .'&' ?'* , .' .'& *,'+,' &' -'+*. * .' +' /<* .

4'2R1''' & '&'- ,'/$'- * .' ' +' &'-+66 - + ' +,')& *-&'3+7 * 6 '+4/' G ,7' +' '6 *',+ .' .' +',- . + 'K?&+'? '+? ' &'3+7 * 6 ' &'/ 0', - *' /+&/' &' * -'+,'2* 0'. - * + ' .' -'+,'&'6 0' +,'1, ' .' &' '/'. - * .' +' /' +' 0*+ .' +' &'<*,/' * &'6 *' +'. / *' & 6' &' *'-+6< -'? &'1<,-+< -' / 0'+& *? 'F , .' &' &')& *-&'3+7 * 6 '6 '/' , .' .' +' , , '6 , *'< ' +'& *., <

2R1''' & '&'?+*.' +*. * ' .' ?, '?& -&'? * %+*' 6 * ' ' &' -'/'<* ,G .' +'/' .6 .' +&?? ' &' *H 6 ' .'&'8 . - * '6 ,', , ' '6 , *'?&+6' &' *,'& ('," +' .6 ' &+' +'-+ ,+*6 ' +' '*

I :151''' & '&,'?+*.' *' +6 .' +' (' ? '&' <* ,Q' 0 '+,'<*, + ' < *+ 0'/ 0' 'E . 0' /' & ?' a

2R1''' & '&'/ < '(' ' & '6 , *' +'* - 7 ' +*,, 6'+&*'/' +' . , '/' 6 .' +' '- * ' 6

3591''' & '&'?+*.'(&5'/' .. .' .'* .' --+*. 0

2R1''' & '&' ,'- ,',+*<<+ 0' '3 * ' , 6/ ' /' ,'+ '+*F , .'-+ ,+*6' +'& ! -'+,' * 6 '

%E1'- ,'-+ - * 0'6 , *'. , ** 0'6+7 .' +'/' 6 . .' #, 0'6 '? *'7+ ' G< .' .'& '&,' 6 -+ ' +' 8+'& */ ,- ' '&'/'+*. * '* 6+7 .' $

Y

' 1%9%92I1',, * .'/', 6 '1<,-+< ' 6 , *'?&+'? * ' 7+ ' G< .' +7 .' & ' &' * . 0'$.'-+ , . * + ' &*+,'60&'/'. .'* ' &'-+ , . * + ' +,'+&*' < * ' +,'&'-' :*'+7 *' .' & ' '& *' &', 6'/ ,+*'7+ 0' %& * , *' < ' +' &'7+ '?& & *' &' - ,' '&'6 , *' ?&+'& .'. , * .'? *' * .' ' ' '* .'+*' + ') ** .' +' +'/' * .' 0* . & '&' -+ . ,- . 0' +' &' 6 ' . < -'+,'&' , 6/ '/' ,'0' &' *' 8 ')+66, + *

%E1'?&+ ' -' 0 '* .' .' &'?+*.' . *?* ' ' &' ,*,'< ' ,'+ ' 8

2> 1)%1''' & '&'< *+ ',+*,+6 '6 , *'- +'/'* .' /- ' ' ' +', /,-* .

I :151''' & ',- *-' '< *+ '<* , .' '&' 6 '+' &' * 6 ' ',0 .

51 =A1''' & '&' +', /,-*< + '? ' +'+/8 - .'+*' 2&*' ? '&'< + '-+ .' +'& 7'/ '* .'$

' 3591''' & ' +' %' + ' ' %'$ *(,('/ ('/' .. .' =',' ' ' %' & '+&' '] ' ^PJQ,+ & ' %&' - / 0'< ' +' &'7+ '? ' <<*+7

%E1'* <+*'+,'&')+66 ' '&', <88 '* .

%E1'+&*'+7 * *'07 ' '/' &' ' ('+,'C, 6 + ' ,+' * .' .'-* 7 .'&' &'+ 'M +,0' &' '+,' * '/' G - .' + ' ' * 6 ' G' .'-+ . .'&' &'6 &+.'60&'/' ,+ +? .'?& * /' '0* *',+ 6'6 '/'* , .' .'6+*' ,< . ' *.' ,' , *' & ' *' &'C 0' ,'*F *'6+*' .. + ' '+'/'6 . ' +7 .'&' &'F + '+,'&', << '/' < '+'&'F , + '9*,+*' * ' <+'&'. / '+,'&', /8 -' .'? '+,'-+D - +

2R1''' /' &'1 * '+,'= &0+?'& ' , .'+,'&' ' 6+ &'-,'&*'6 '/' 0&'6+ &4'-,',+*'&',*,' 8*' .', 7'6+ &',+*',+ *' * ' &*, *' +'6 (' <' ' 6+ &'-,'?&-&'? '/'6+*' ,, - ' +'&'C 0', 0'&.' -+ * '? '/'6+*' /'Q'* . ' +'< ' ' &'6 &+.'&7 $','6+ &'?*'< .' '+*/

' ('E 6 + '6+7 .'&' ,'&'+&*27 * * '? *' +' . .' +'&*'60&'/'+ '+,'&' K'07 ' +' &'C 0',+, &8 * ' , .'+,'* 8 + '/'&'. / +*

2R1''' &'&'F , + '6 '/',*,' ' +' &'F + ' .' = &0+? '6+ + ', -+ . .

"

2R1''' &'&', *,' *'F + '98' '6+ &' *.',G' 6+ &',+* &* ' *'&*, *

2R1''' &'&' 0&'6+ &',+*' &',*,' *'/';,+' .' 7 . .' ',+ *'/' ':&, . ' .'?+' '= 6/6 ' .'?+' ' * 6 ' G' 4

2R1''' &'&*'/'86'6+ &' ':&, . ' .' ' ' * 6 ' .' ' ':&, . '-+6'' *

9%'/ 0'< ' +'&'7+ '?& &*' ? ', 7 '6+ &'-,' ' &' *6'+,'&'* <+*'+,'&')+66 '+*' '6+ &' '<*+' <+, .'/'&'1 * '+,'= &0+:'<*+<+, D'- ** .'9' / 0'6+7 .'&'&'-+D - + '60&'/'F * * '< '+'& 7+ '?& & * $*6 '+*'F * * '- ** .' *6 '

2R1 '&'&*'6 '/' 6<+, .' ', 0', * 0',+*' 7*',++'6 '6 '+'/'< .' '= 6/6 ' .'/'&' +H 6 ' .' ' 4

I :151''' &'&' +6 ' .' '?+ .'+'/'/' +'< '&' ', 0', * 0' .',+'&'/*& '# + .'-+6' +'/' .. + ' <+'&' .' .'&'&* +*' .' '- -'&' +6 '?*'/*& .'&'/&++7 .'+'/',* .',*+6'&' 6 ' .' ' ' +(+? '&+?', *'&')+66, + *' ' ,*-' .' '&'6 *

92 2 ==''-+ - * 0'<*, ', * & 0'+,'&'*6'? &' -,,*'* .' * 6 '.8+ * .'* 'J* . ' ' ' '-+ (' .' D'<*+- ' .'6 *'-+ .' p'&'6 ' 6

2' 8 9

J%15K'- 0'&'5+ ' '<*+<+, D',+*'&',+*, '< *,+ '07 ' '+*. * ._'+'/' ('+'-+ , . * + ' G' , *'&', << ' '-',+*'&'+'+,'3 ,0+?'07 ' ' '< *+' ,+*'&'<*,+ *'+,'C 0, '07 ' '$ *+ ',+*'&'= . '), & ' +' .'-',+*'&'/* ?*'+,'&'+ ** ?' *+'&'1 * '+,,) ' *+ ',+*'+&'=+* 6 *' *' *+'&'= *.'+,'=+-&+ ' *+ ' N' : 6')& , ' *

+ * -(Q : U= + + & /* ? * ;+,> . + ,+* : * + + ,+*=+ 0& ?' + ,+* 6 6 &' -' , 7+ * +,' C*(& '=' %& . 6 , * +* +,' & E+,< '+,'= *0+' + ,+* 6 5 6, '

$ $

%E1' -',+* &', << '* .' 0* .' & & -' / * 6 .' 0 '+' &')+66 ' .' & 6 6/ *'?&+' < ,' 6 '/'<* , ' .' 7'07 '6 '6 ('<*+<+, ',+* &' ,'+,' & ' .'*

%E1'+& *? , ' & '<*+- ,'+,' * ,+ ' - .'$.',*,' 6 ' -+ 6'/ 0',+ 6 ',?+* !. <+ .' '<* , -'+,' & ' * 6

I 1'+*. *+,' * 6 ' +' &' 1 *'+,'= 7 '0+ * +6' +' /* 0',*+6' &'- , ' +' << *'/ ,+*' &' * 6 '&'= *.' +,')+0 ') +7'Q' 8+* 6 ' . + ' +7 .' & ' &' G 6 + '+,'&'? , '/'. .' '+' &, '<*,+ ' +?' '<* < ' .' & ' & *' / 0'/*+ 0&'/ ,+*',&' * 6 '/' . .' ' & '0 '' +<'+,' &' / D' '+' &'F , + ' ?& & *' ,' &, '<*,+ *'<*, ' '&'/ *'+*. ' ' &' G'. ') ** .'. ' D' &' G'. ' .' &'- ('+? .' +'07'-+< '+,' &' / D' +' &'<*,+ *' ,'* 8 * .'%&' G 6 + '+,'&'? , '<*+- . .' '+' &'+& *. , . *' / , . ' &'< *,+ ' '& .

)& * ' *' + 0 *+,'> -& ' '+& *? ,' - .' '' <*, -'+,' * 6 '. <+ .' +& 'E '+' +' &'= *.'+,' : 0& + ' D/'. <+ .' '? ,' ' &'<*+- ,

$3 * ' C '<*+<+, ' ' &' *6' 0. ' * .' .' , *. / ' &'<*+<+, ' * .' ' &',+*6' +,' ' -'9'? ' < '+' &'7+ '* 6 '+' &'-+ , '+* +' .'- ** .' 5 6 ' +' &'-+ , 5

' 1%9%92 I 1'07 ' ',+*) < 'K=+-(& *'+,' C*(+ ' %&' * 6 ' .8+ * .' D' . ' ' ' '-+ . .' ' 6 *' .'<*+- , '-+ F.' ' &'6+ ' 6

' 6 8 9

J%15'- 0' &'5+ ' '-'<*, .' ', 7+ *'+,' &' 1 *'+,'% ** ' '< + ',+*5+/ *' . *'+,'C & ' ,+' '-',+* & =+*.' , -') *(' .' '+& *',+* : ,,& ' .', 7 * '+& *' 0* .' +', ' &'< + ' .' -'/'07 ' ' .' & ' &')+66, + *',+* &'* 0, '+, -'- , '6 ('*+'+,' & 6' & ' & '6 '&' ('6 2 8-+ , . * + ' ' ' &+ 0&', ' 'K * 6 ' ' 4 #

' '5 D3E%'+,' &' -'+,' << '* .

2R1''/' &' *+7 ,'<,'1. / *0&' & ' & *'/ 0',+6' 6-, '+'/' .7 - .' ' &'+ '+,'1. / *0&' & ' '/'+*. * .' & ' & *?& ' & '/' .7 - .'+* ' /'<*7 '< *,+ ' +* -+*<+* + ' & '& 7'*0&'+,'* 7 *, + ' ' & *'+ '& . ' +,'?& ',+ 6 '+*<*+<+* + ' *'. ?'/ '& 6',+* &'- , ' .' & ' '/'< * - * ' G<*, .' &' .7 - 6 '/'& ' + 6',' 1.' .' '&'- '+,'&')+66, + *'+,'&'%&, * '+*+,'&'' =+*.'+,')+ ,
0'

%E1' -' 0 '* .'/'< * 0* <&'9'? '6+7 .' & ' &',*,' *6'< 6 '+,' &', 7'6+ &'- ,',+* &' , /, F ' *' , * &'<*, ' *'/' , .'+,': & , . ' .' & ') . ,6 ' .'= 6/6 ' .'/ 0'< ' +' &'7+ ' ?& & *' &',*,' *'< 6 '9&+ .'/ 0 ' ') . ,6 ' 2 +* ' : & , . ' & ' *') ** .'+'/ 0 ' ') . ,6 ' G' .',+'<*+- .' * ' ') . ,6 ' .'D 6/6

2R1''' & ' , *' &',*,'6 * 0'/' & ' & ** ,,' & * , *' & 9& *'/' 6<+ * .' +'-&+ ,' & *'+ ' + 7 *' .' <<+ ' & ' . '+,'6 0' & ' & '6 8+*' < *'+,' & ')+66, + *' & ' , '6 ' ' -&'. ' +'<*+- .' 0* .' & ' '- -'+,'* 7 ' + ' & *'/'<* , ' ' & *.'+,' & '?&+' ' 6 '& 7' ' -- < .' +'/')+66, + *

2R1''/' &'1 *'+,' *0 ' & ' & '7 + ',+*' &' ,& *'+,' *0 '/' ' & '< .'<* - . 0' & ' *'

2R1''/' &')+66, + *'+,' &'9& *'+,'> *? -(' & ' & *'/' +'< * - *'* + ' +' &'* 7 + '+,' &'9& *' +,'> *? -(' 6+*' & '+,'+ & *'9& * '

I :151''' & ' ' '6+*' - , *' & *'/' '* 7 + ' ' # &'9& * & '+ & *'/ - ' & *' +' /++(' +,'7 + ' ' & '9& *'/ '+ '*+ '+,' ,, , 6 ' .'/ 0'-* 7 .' & ' ' 6 0&'/'< ' +' &'7+ '?& & *' &'9& *' +,'> *? -(' / '+*H . .' +'7 '+*' +') ** .' & ' &', *'/'+*. .'K +' 7 '&'<*, '7 + ' +'/'&'* ' D' * 7 , + ' /'4' 6 .

2R1''' & '+*. *' 6 '/' (',+* * 6/ *, 0' &')+ 6,* ' +,'&' .7 - 6 '6 .' +' &',+ . *'+ '+,'&'<*, '-,

2R1''' & ' & '6 &+.' +,'* 6/ *, 0' &')+ 6 * '/' ,' '+ & *'<*+<+, '-+ - * 0', << ', . *' -+ , . * + ' .' +'<*+- .' +' &'* ,'+,'&' -': & -&'? 0* .' +

3591''' & ' & '< * '/' / ',*+6'<*+. - + '+,' . ,' -& *0 '&* ' *', *'&'* < - 7' *6'+,'< 6 '2*. *H .' & 'K&') '&& '(((5'/' .. .

$

' I 1'+7 * *'* .',+* 6<+, 0'& *&'6+ '* 8 - .

E1' -'/ 0' D'* .'+7 *'/'< * 0* <&' +7 .' & '/ ,+*' 7+ 0'+,' &' -' &'< 6 '6 .'/'&')+ *' 6 0&'/' +*. * .

I :151''' & ' ' ' 0* .' +' & ' &')+ *'+ 0&' +'/' < .'/ '0* ' ** *'/ 0'. ?' +' &',+ . *' .' &'<* H , ' G0 -'* F * 0' & *', *7 -' & '6 ,'/'< .'' ' &' ,*,'< 0

I 1'+7 * *',+* &' +' + '* .' 0* .' & '?& ', * & *' 27 * *'&' ' &' << '/'* 6 .' +' &')+66 ' %&' * 6 ' .8+ * .' ' : . ,. ' ' ?+' '-+ (' ' &' ', * ++ 'Q' '<*+- , ' D.' 6 *'-+ .' .' & ' ' &')+66 '6 ' ' ' '-+ (

8 9

J%15'- 0'+,' &'5+ ' &' , '+,' &')+66, + *',+* &' << '* .'%& ' , ' +,'> *? -('Q' ' 6,* ' 9& * ' <& ' ,+' &',& *'+,'5+G/ *0&'%& ' '?&+' *' -+ .' 6'@/+ &' ,'07 ' ',+* *&',& *'/' % '1 * '+,' *0 ' .' &')+66, + *'+,' &',& *'/'* .' ,+' ' ,'07 ' '/' &'=+*.' C *.' G- <4,+6'+*. * .' +'/',-* < .'+ ' %&'<* .' ,' / '&'6 0'+,' &'1, ',+*4&', *' +,' ' 6,* ,' * .' .'+*. * .' +'/' , *' G- <' * *-(' G? ' .')* 0' . **+-&'? &' ' .. + L' ,' 37 ' ' ' ,',+* &'9& *' +,')*+6 * ' &', 6 '7. -&'? *' <<*+7 .'/' &' -' +,', << ' 8' ' &'6 0'+,' &'1, ' &'<* .' ,' ' &'6 ,0'+,' &'1, ' &+* S .')+66, + *',+* &', <<

2R1''' & ' & 4 * - '+,' &'9& *'+,': 0 + ' .' ? * * ' +,'C*(./*0&'6 0&'/'. 7 . .'?& -&' , &' +'< ,' D . *' + '5 6 .' +' &'R,-+ '+,' *' =+*.' .7+- ' .'

<

' / &%*%* &' ; ' !?;' #B ' K; !?= ; ' ?!' 1 =A! 88' ; < ## ' #?' #B ' ?C=! 88' [\ ' \' ' ' [4

' 1%9%92 I 1',*+6' 5 6 / ' * .' ' ,+' ' + & *' ,+*' & ' = . ' ' * &' & ' 6+ & *' /+ &' * 6 .' +' & ')+6 6 ' +,' J

3 +*0 ' = ' +,'> *. / (' <<+ .' +' / ' . . .' +' & ')+64' 6 , + * ',+*' << ' +,'> 6 ,,

I 1' . . + L' , ',+*' & '9& * ' +,'> *? -('+*. * .' +' / ' . . .

I 1' . . + L' , ',+*' * 0, * '* .'Q'+*. * .' +' / ' . . .

I 1' . . + L' , ',+*' C *(. / * 0& '* .'Q'+*. * .' +' / ' . . .

I 1' - ' ' & ' , << ' * .' -+ - * 0' & * &' 6+ ' %& ' * 6 ' .8+ * .' ' & ' 6+**+?' ' ' - + (' .' ' 6 * ' .'<*+- , ' -+ .' ' & ' 6 ' 6

$ ' 8' '

9 +' - 0' & ' 5+ ' 9 ' & ' / (' +,' & ' - ' +,')& *-&' 3+7 * 6 ', D .' < & ' 6 0' +,' & ' 3 * ' ,0 6 / ' +' a / ' ' 1 . / *0&' & ' & *.' %& *, . ' +,' 2- +/ *' G' 9 9' %& ' , .' - ' ' & ' C *(' 3+7 * 6 '<* , .' +' & ' E 0&')+6 ' 6 , + *' ' ,+' & ' - ' ' & ', << ' .' /+ &' - ' ? * ' + -& . ' ' ,+' & ' - ' +*. 0' & ')+6 6 , + * ')+ - +* ' .') *(' +,' & ' << ' +' (' & ' + &' +,' .0 - ' ? ' + -& .' #' ,'

%E 1' - '<* , .' / ' & ' 1 * ' +,')* ?,++*.' * , . ' .' & ' = . ' ' & ' 1 * ' +,' : 0 + ' .' & ' /*+ & *' *< , 0' & ' 1 * ' +,' * &' + ' & ' -+ . + ' & * ' 6 * + ' ? ' * .

I 1' + & *' - '<* , .' / ' & ' ' (' +,' E 6 + ' ' * + ' +' & ' =+*.' '* 6 6+ .' ' & ' *6 ' ,+*, .' ' ' & ' 1 * ' +,' : 0 + ' * 5' : & -&' 4' - ' . .' . ,+' * ' +' & ' 1 * ' +,' : 0 + ' .' & ' /*+ & *' .' / * ' ' . 6 ' +' & ' 1 * ' +,' * &' .' & ' =+*.' '* 6 6+ .

2R1 ' ' & ' ,*,' & '$ * 6 ' <*+- .' +' & ' ,*,' - ' ' & ' 1 * ' +,' : 0 + ' %& * , *' & ' -+ .' - '* : 0' /+ &' +' & ' 1 * ' <,' : 0 + ' .' =+*.' '* 6 6+ .' * .' 0 7 0' & ' 1 * ' +,' * &' * ,6 ' ,' & ' <*+- * ' +' & ' 1 * ' +,' : 0H + ' .' & ' /*+ & *',* .+6 ' .' . 6 ' ,' & ' <*+- * ' /+ &' & *' / * ' ' ,+' <*+- * 0' & ' / * ' +,' & ' =+*.' '* 6H 6+ .

%E 1')+6 6 , + *' . - * .' & ' ?+ .' - & ' & ' 8 , ' ? &' & ' <*+<+, ' .' ' & ' 6 ' 6 ' ?+ .' - , ' F * ' ' & ' 1 * K' +,' * &' ,' & ' ? ' , ,, .' +' . * (' & ' <*+' <+, ' +,, * .

7 8'

I 1' - '* .' ', 7+ * ' +,' & ' *+ ' / **+ ',+*' 0 7 0' & 6' * + ' + ' +,' & '$, << ' ') . ,6 ' G' Q' & * , *' +,' ?& ' 6+ ' ' . ?' +' & 6' ,+*' & *' .7 - ',+*' & ' ,' +,' & ' *6

2R1 ' ' & ' & ' - ' 6 0& ' / ' 0 * ' +' & ' , * ' ' ? ' ' & ' / **+ ' '

2R1 ' ' & ' & ' --+6< ' / ' +*. * .' +' / ', *,' .8 , .' ' & ' + * ' / ,+* ' & ')+6 6 , + * ',+*' & ' << ' , 0' & ' ')+6 6 , + * ' * ' <<+ .' +' (' & ' + &' +,' .0 -

25 ' 151 ' ' & ' & ' + - +*' . ,< -& -+< ' +,' & ' - ' +,' << ' +' & ' * ,< - 7 ',& * ' +,' ' C 0.+6 ' & ' & ' 6 H 0 ' 6 ' &+ .' ' & ' . ' <<+ .' / ' & ' -

2R1 ' ' & ' & ' *6' +,' * + ' 6 0& ' / ' < ' +7 *' ') . ,6 ' 9 6' Q' & ' & ' * + ' / ' + K' ,'K?& ' ' ' *' + ' & . ' / ' +' +' * < ' + ' +,' & ' 0&/+ * 0' 9& * ' Q' / **+

' 2R1 ' ' & ' & ' ** * ' / ' +*. * .' +' / ' < .' +' & ' +,, - * ' +,' & ' *6 ' + ' & ' -+ * ' ?& * ' & ' & 7 ' * ,' .' & ' $+,, - * ' +' +?' * + ' +', &' ' * ' & *' -* . +*

2R1 ' ' & ' & * ' / ' ' +*. *' +,' * 6 ' +' -)+ 04' + ' +' , *' +' & ' < + ' +,' & ' = . ') , & 7 ' 0 ,' & 6' : & -&' ? ' 0* .' +' <*+- .' + ' ' &+ *

I 1' - ',+*' , 0 + ' +,' 6<* ,+ 6 ' * .' 4

52 2 == ' * .' ,+*' . - * 0' & ' , 7 * ' ,< - ' +,' * 4' ,+ ' .' & ' G ' +,' ,-& ' .' & ' * ' +,' *-+6 6 0' .' , - < ' .' ' & ' -+ 0 ' Q-

' 52 2 ==' 6 . ' / ' & ' C 0 ' .7+- ',+*' . - * 0' ' +' / ' 6 * & *',+*' ?+6 ' ?&+' & 7 ' & *' -& .* ' & ' /* 0', * &' . .' ? &+ ' - 0',+*' & ' & < ' +,' ?+6 ' ' & *' /+ *' ?& <' & ' 6 ' & 7 ' & 6

2R1 ' ' & ' ' , ?')+6 6 ' 6 ' / ' <<+ .',+*' & ' ,, -

%E 1')+6 6 , + * ' 3* - ' 6 . ' 0',< -&' ' & ' *6 ',+ +? 0'

A' =+*. ' .' 3 6 ' 9' ? ' +' ' ', <* , .' +', ' & ' & ' & ' ? * ' 6+ 0,' + ' , *. ' .' +' & * & * , -H + ' G<* ,' Q' , '' 0 ,' & ' 0 ' +,' & ',+7 * 0 ')+ *' & ' , + ' E ' 8 , ' , *' 6 * '. / * < ' & 7 0' -+6< .' & ' +6 + ' -+6 6 . .' & ' * 7 ')+ , ' +' , ' ,D* &' ' <*+- 6 + ' ,+* '+< 0' & ' , 0 ' .' , 0'

.+ ' +,' & ' , + ' ?& -&' * - 7 .' < - L' +/ . - ' .' +?' 9' 6 , ' ' + ' 9' & 7 ' +' ? ** .' +*' , * - + ' ,+*' + -& 0' & ' R+ ' +,' &< ,' , + ' +,' * 6 ' e +(' +,' , *. ' ' * + ' & * +' .' 9' . , * ' & ' +' 6 6 / *' +,' & ' + ' * 6 ' 6 ' +,, *' +' - ' ' F , + ' ?& ' ' & ' 8 , ' 8 ,' .' -+ * 7 * .' <* *+0 7 ' +*' & ' 6 ' + -&' ' &+ +*' * , - ' <+ ' & ' -& * - *' +,' & ' 8 . - +* ' +,' & ' , + ' %& ' * 6 ' .8+ * .' ' % ,. ' ' ' ' - + (' .' ' <*+- , ' .' 6 * ' -+ .' ' & ' 6 ' 6

' ' 8' 9'

J%15' - 0' & ' 5+ ' & ' < ' * .' ' , 7+ * ' +,' & ')+6 6 , + * ' +,' & ' 5 0 , * ' 2,, - ' ')+6 6 , + ' / ' & ' ,+ *')+6 6 , + * ' +,' & ' 5 0 , * ' 2,, - ',+ . .' <+ ' & ' +*' +,' & ',+*, .' < ' .' -+ ,+*6 ' +' ' - ' +,' * 6 ' ' 6<+ * 0' 5+/ *' N' +,' >6 0& ' +' G *- ' & ' 5 0 , * ' 2,, - ' .' & 7 '@< - ' ' ' ') *(' +,' 5 0 , *' * .' %& * , *' & ' , .' - ' +,' * 6 ' 9 9' * .' ' ,+' * .' & ' 8 , ' *',+ . .' <+ ' & ' , .' - ' +,' * 6 ' ' , 7+ * ' +,' 5+/ *' ' +,' > *0&

I : 151 ' ' & ' & *' & ')+6 6 , + ', +6' & ' * ,' +,' & ' $* 0 , * ' +*' & ' C 0 ' * +' & ')+6 6 , + *' ? ' ' & / ' 6 *' +,' -+ , 0' ' 2,, - *' +,' ' ,' ' < ,' / ? ' +,' < ' . *' & ' D' Q' & ' - ' * .' ' +' ' - ' +,' *H 6 ' / ' ' . - * + ' +,' & ' C 0

51 =A1 ' ' & ' & ', - ' +' & ' * ,' +,' & ')+6 6 , + *' +' , /, ' + ' +,' & *' 6 / *' +' G *- ',+*' & 6' ' ' & ' < ' .' ,+' . *' & ' 3* ' ' .' & ' = *' .')+6 6 , + ' ' + ' ' 8 *- 0' +,' & ', - ' : & -&' / 0' * .' .' * -+*. .' ' * 6 ' 07 ' * 0& ' +' & < *,+ ' ,+' +* & ' Q' & ' ' +' / ' .6 .' ' * 6 ' .' & ' . - * + ' +,' & ' C 0' ' *

51 =A1 '!& ' &' * <+*' 0 . , ' ' +' &' 6 '?& * ' &' -' '+ ',+*' * ,- . 0',+*, * ', -' *' ' .' & *,+*' &' * <+*' 6 ,' ' +' &' ,, -' & *' / '* , * - .' +' &' *' '+*' . .' ' &' -+ , . * + '+,' &' 0 * ' -

' D =A1 '' & ' / '& ' 8 , '9 , * - + ',+*, * '? * ' +' / '* , +* .' +'+ ', - ' &' ' / ' D/', - ' &' *'

%E1' * 6 '+,' &' * 6 ' ' &' - -' +,' ? + '* .' ' D/' &' 5 <+*' +,' &')+66 ' &' -' +,' * 6 ' ' ,',+*, * ' &' 5 . + '+,' &' .' +,' & 1 * '+,' E & ' 0 ' .' 1**+ ' ,+' * .' %& ' F , + ' / 0' < ' ?& & *' & * ' ? ' - , ' +' - ' & '1 * ' +,' = ? & *. ' +' , *' +' ? + ') ** .' ' &' 0 7 ' & ' & * ' ? ' +' - , +' - ' & '1 * '+,'= ? & *.

%E1' 0 * ' -' * ,- . 0',+*, * ', 'Q-' ' ' ? ' <* H < * .' .' * <+* .',*+6' &')+66 '* .

I 1' -' -+ - * 0' < *+ 0 '* .' ' ! $'

I 1 +& *' -' * .' ,+*' &' < 6 '+,', << ',++ *' .' ' +& * *6 ' & ' & , ' <<+ .' * ' &' -' ' &', <<

2R1 '' & ' ' &' -' +,' < *+ 0 ' & * '/ ' ' G- < / '+,' &',& * '+,' *0 ?& -&' ? '07 ' ';

I 1' + & *' -' ' &', << ' -+ - * 0' & *&' 6+ ' . & * ' '< 0' &' ** * ' +,' &',+*- ' * 7 0' &' .' - ,' * .

W 4

' ' 1> 9%' ?& -&' +,' &' <*+<+, ' ' &', << ', &+ .' / ' , , .' + ' &' F , + ' < ' : & & *' & * &' 6+ ' &+ .' / ' < .' ' &' *6 ',+, &' -' +*' +') ** .' ' &/' 0 7 '

0

%E1' 1 * '+,' +* + ' ' 6 'h,' &' 1 * '+,' *0 '* * .' &' G - + ' 0 ,' &' =+*.' I * ' .' &' + & *' * <* , ' ! 7 '+,' &' .0 ' 8.' . - * .' 96' . . +' , ' <*2' +-+' 6<+*' 0 ,' &' =+*.' I 6 ' / ' : ' -+ ' 8 ' &' . ' 0& '. ' 6 0&' / ' E+ ? .' +' '+ & *' . , . *' +' , *' ?& -&' : ' --+*. 0 '+*. * .' R\' * , ' .8+ * .' , ' & '6+**+?' ' ' ' .+ (' .' '<*+- , 0' .' 6 *' -+ H .' ' &' 6 ' 6

4 $ $

$

J%15' - 0' &' 5+ ' &')+< , + *' 3* - ' 6+7 .' &' ', ' 6 0&' / ' <<+ .',+*' &', , '+,' & ' 8 , '< *,+ ' .' &', -- ,' +,' & ' *6 ' .' & '+' % ,. ' -+6 ' 0&' ' . ' &', ' / ' (<' ' ' < *+-&' C *(' / ,< &' % ' .' +' % ,. ' -+6 ' ',+ * 0&' & ' &', ' / ' (<' ' ' < *+-&')& *-& ' / +* &' % ' 8+ 0' ' &' * ,< - ' 6 *' +' 6 (' 6 + '+,' &', ' +' / ' (<' --+*. 0 ',*+6' & *' < < ' &' // &' . '<* - . 0' ?& -&' ? ' --+*. 0 ' 0* .' +' .' +*. * .

51 51 1I%1 '' & ' &' ' /' *¢ +' / ' .7 - .' / ' &' + '+,'1. / *0&',+*' &' ,'+,' &' *6 '%& ,' +' .7 - ' &', 6 ',-*+ < ' +' * ' <+ ' &',) * '+,' &' -'+,', << ' ,' & '0+' & *' <* 7 ' , - * '+*' ' ,' &', -&* '+,' &'0 * '* - 7 * ' '

%E1')+66 , + *' 3* - ' 6+7 .' +' <*+- .' +' &' <*+- ,'+,' ,+*, & * ' 4

%E1' ? ** .'+,' 6 6 ',+*6 * '<*+- * .' / ' &')+66 ,' + *',+*' &' / *0&' +,' 9*? ' 0 ,' &' -* . +*' .' /+*H *+? * '+,',+ 8' 6+ '-+ - * 0' &' / *0&' ? &' &' G - H + ' & *+,' ? * '07 ' ' / ' &', .' 6 6/ * *' +' &' - *(' .' -* 7 .' & ' ' 6 0&' / ' 6 .

2R1 '' & ' &' F , + ' 6 0&' / ' < '?& & *' ' .. + L' , << ' +' / '0* .'+*' & ' &' *6 '+,'< 6 '+,' &', << ' 0*6 .' 6 0&' / ' - < '%& ' F , + ' < ' .. + L', << ' - , *' ,+*' < 6 '+,' &' ** * '+,' &' *6 ' . ?' +' &' -+ * '/ ' +' +' / * & ' &' .' * ' '+*' +') ** .' ' &' ,,*6 7 ' &' ' .. + L', << ' ' - , *

2R1 '' & ' &' ., + ', << ' / ' / ' ? '+,'<+ '

2R1 '' & ' ' / '+ ' &' '*

%E1' -' +,' * 6 +' ' '* + ' +' < 6 '+,' '* ' +' &' C 0' * .'%& '<*+<+ + '. .' ' &' 6+**+?' ' !

I 1' -',+*' . ,-& *0 0' /* . ' ,,*+ 0' ? *' .' 6 6' / *' '<* 8 . -'+,' &' -+ , 6< + '+,' / * ' +' / '/*+ 0&' +' &' C 0.+6 '* .

I 1' -'* .' . ,-& *0 0', -&'+,' &')+66 , + *'+,', << ' '& ' +' (' &' + &' ,' &' & 7 ' & . ' (' &' + &'+*' *' - , * ' /, '%&' . ' <<+ .',+*' (0' &' ' + &' &', *, '+,' 0 ,

%E1' -' 0* .' +' ? &+ ' '7+

%E1' . <+, + '+,' &' ? , ')+ ' I / ' .' -+ 6 ' .' +& ' E ' .' > -& ' * .' ' &' 1 * '+,' ' 6, *6 ' 0' .' / 0' < ' +' &' 7+ ' *+7 '+*' +' - ** .' *+7

$

%E1' . <+, + '+,')+ ' I , + ' 2 / * ' > -& ' .' +& ' $E ' * .' -+ - * 0' &' 1 * ' +,' > -& ' %& ' =+*.') *.*+, ' * ? .' &', ,+*6 *'86+, , < '?& -&' ? ' --+*. 0 '& ' .' &', - ' +' / ' --+*. 0 ' F , .' ? &' &' / *. '+,' &' =+*.') *.*+, '* 0& '-+ .' '& '<* + , + ' .' * ' < ' +' &' F , + ' *+7 '+*' <+' - ** .' *+7 '

$

%E1' 1 * '+,')* ?,+*.' 0 7 ' ' ' / -(& .' / ' & 41 * '+,' ' 6, *6 0' +' &')+ ,' & ' = . ' . .' ' ' ' . - * 0' & ' ', 0& + '07 ' / ' & ', .')+ ,' +' & ' 1 * '& *' /*+ & *' H' ' 6 *(' * ' +,' & *' ,* ' ? ' +' & / &++,' 2,' & *' -& .* ' ' 6 *' 6 + .' ' & ' / -(H & .' Q' & * <+ '<*+ , .' & ' & ')+ ,' .' & *' -& .* ' 6 0&' +' / '<* 8 .0 .' / ' & '1 * '+,' ' 6, *6 0',+*, * ' : & -&' <*+ , + ' ? ' .6 .' .' & ', -'+,',+*, * ' +' / ' --+*. 0 'F , .' ? &' & ' / * & '+,' & ',<*, .' * 0& -+ .' ' & ' / -(& $. $ $

%E1' . <+, + '* .' 0 ,' & 'R ,-+ '+,' J* .* 0&' +,' 2 / 6' > -& ' .' +& 'E '?&+' ? * '<+, 7 ' < +' & '7+ ' *F '+*' +' - ** .' *+7 ' $

%E1' . <+, + '* .' 0 ,' [')+ ' C S '78' I ,, ' > -& ' .' +& 'E ' +7 .' & ' & '. <+, + ' / ' +' ' +' & ', 6 ', - ' ' & ', 6 '< - ' .' & *,+*' ' ' +'<*+7

I : 151 '' & ' &8' <+, + ' .+ &' &+ .' ' +' ' . 7 . L -' / '?& * ' & ' / ' ' ' * ,+ ' ' '* / + '- ** .' ' , R * D' < - ' ' * -'+,' 6 ' ', ,, - ' +'<*+7 ' & ' & , '& 6' . ,, * '< - ' ' & ', 6 '* / D + '%& '. <+, + +,' I / ' .' E ' 0 '* .' ' +' & 'F , + ' *+7 '+* +' - ** .' *+7 ' ' $

f

%E1' . <+, + '+,')+ ' -+& 'Q' > -& '?&+' * '<+, 7 ' F' +' *' +& ' '* 66+ .' +,' -& ' * .' ' ,+' & '+ & *' &* ' ? , 'Q' / 0' < ' +' & '7+ ' *+7 '+*' +' - ** .' *+7 ' B $;'

T F

%E1' . <+, + '* .' 0 ,' *+? '5+/ * ,'+ '7 8' I ,/ '
2 / 6' .' +& ' E ' .'/ 0'< ' +' &'7+ ' *+7 '+* +'
- ** .' *+7 '

%E1' . <+, + '* .' 0 ,' *+? '5+/ * ,'+ '7 8' I ,/ '
> . '/*+& *7 ')+ ' 2 & ' .' -+6 ' .'> /
.' +&'E '?& *+' &* '* ,<+, 7' .'/ 0'< ' +' &'
F +' *+7 '+* +'- ** .' *+7

%E1' . <+, + '* .' 0 ,' 6 '1.6+ ' + '+,' I ? + '+,'
' 7 *)+ ' I / '2,8 * ' -+6 'Q'> -& ' .'/ 0'
< ' +' &'7+ ' *+7 '+* +'- ** .' *+7

%E1' . <+, + '* .' 0 ,' : ') 6 *+ '+,'=+-&0 '
.'& ' . ','+' 7 ')+ ' .'2 / * ' -+ 6 '> -& ' .'
E ' .'/ 0'< ' +' &'7+ ' +' &', & *' .'+'- ** .'
<*+7 ' ' +'/+ &' .'+* < .'/ .'+','/- + '?& -&' ? '
* .'/ G' =+-&0 'Q-'& 0& . *' , 0 .' ' &') ' '+,'
> *' , 0 .' ' +& &*' .' *'9 2, /'-*/ .'
' / * .* 0& .' +& *' +' ,' -(' +' + ' +& *' '& ' .'
8 ' , *7- ' :& -&'/ ' &'< - ' .'< *'+* << *' +'/ ' &'
' .C 0' 6 '> ' &+?7 *' ' ' ?, ' -+ 7+- + '+,'
& ' .0 '?& -&' & .7+- '6 (' ,'+','+*' , *& *'<*+/ +

52 2 1'' & ' 6 &+.'/ * ,'+7 .'+ ' ,'+* .'-+7 * 0' & '
-+6/ + ' .' -+ ,'<* - '?& -&' 6 '/ ' - ' * .'+'
<*+< *'+* + & *' +' &+*S .'/ ' &' * 6 &

2R1'' & ' & ' 3+ ' / ' 6<+? * .' +' < ' &' +& '+,'

%15' - 0' & '5+ ' '? '6+7 .'/ ' &' 1 * '+,' *0 '
& ' < ' 0 7 ' + ' 0& ' 6 0& '/ ' &' U4 . 4 ' +'

$ ' & 9' '
#

%E15 J%15' '? '<*<+, .' & ' & * ' 6 0&'/ ' ' -,'+*'
<+ '6+ ' +'/ G - .','+** & * +*'&*+6' &' ' '< ,'
' &' :9,'+** & *' ','+,'&'-,' 6<+, .' <+ ' &' .'
* ' :& -&' ,'+*6 '. / ' ? '7+ .' ' .'< ,

%E1' . <+, + '* .' 0 ,' 7+ * ',+,' & '7 .'-* .' +*' .' 0 '
' ' ++(& '+ &+,' * 6
8 ' .' ++(& '+ &+,' * 6

8 91%159 ')* 0, +,'3 *')+66 ' + *'+6' &' ' ? * * '
+,'2*(','?+*' .',0 .' & '+ &+,' .0 -' +' &' *' '
& '7+ ' <<*+7 '+* +'- ** .' <<*+7

%E1' . <+, + '* .' 0 ,' -& * *0* .'/ & *' 8 ' '
+' & ' +,'3 .0+?'* .' ' +'-+ ' *6 .'* .' '
+7 .' & ' & '< ' 0' +,' & ' * ' 6 ' ' ' ' & '
' (+,'E 6 + '/ & *' .' ' ,'+,'-+ ' .' ' & '6+**+?'
<*+7 . 0' '/ & ' * ' ' ' ' +

%E1' -' ' &)+66 ' + *' (0' & '+ &+,' .0 -
< ' & ' . '+*. * .' +' / ' <* .' ' / 0'<* ' .' +'&
8 ')+, ' + *'? '/ '& 6' + -& .' .'
$ 4

' 1%9%92 I1','+*' & ' + ' +',= *'(-* 7 0' '> *7 ' +'
* < ' & '<* - ' +',' & '-+66 + ' 6 *+6 .'? &'
/ '& 6' ' 0' & '-+& 8 +'? ' +'7 0 '7 %& ' * 6 '
.'8+ * .' ' & '6+**<?' ' ' ' -+ (' .' '6 *' .'<*+'
- ' ' .' ' & '6 ' 6

$ 9 ' & '
J%15'- 0' & '5+ ' '* ' +',' -& * *0* .'
/ ','& 'C 0' +' & ' + ';3 0+?' 6<+ * 0' & 6' +' -&+ ','
& *+? 4 0 ' * '? ' * ' ' ' '

9 ' 8 8+'

J%15'- 0' & '5+D' ' -'/*+ 0&' ',*+6' & ',)+6* 8 ' ,+*' 0' & '3+7 * *& ' +',& ',)& *-&4 ' & '7 ' + ' +'; 7 *' ' ? ' ' ' ' 0*';' +'? &+ ' (0' & ' R'-+ ' +';% */ ' ' * ' & ' = *.',+; 2*6 ',+ ' ' * & *' * 6 '20 7 ' ' *' : D 6'1 6 + ' ? * ' , - +* ',+*' 6 (0' 0 '<+?. *' * ' D/' & ' -'?& * +' 6 ' ' $ ' ' 4 ' *. ' ' ' '

/ &++,' - ** .' Q' +' & ' / ++7 ' .' --+*. 0 ',+' * .' %& ' ?+*.' +,, - ' ' & ', /, F '- , +*. * ' +' 0+, Z ' ' +' & ' & '- ,'+*. * .' +' / '.

&' & ' ,+' '- + *' +,' & ',+*, '< *,+ '6 0&' / ' ,* '+,' * ' '& ', ,< , + '+,'. 0 -' 0 ,' & 6' ,+*' &' <* - < ',+ 6 '* , ** .' +' & ')+66 ' *+- . .' +' &'-+ , . * + '+,'&' -' B' 4B

2R1''' & ' &' - ,' ' G +* .' /+ .' Q-' / ' . ' 2*. * .' --+*. 0 ' & ' & ,' - - ' / ' . *6 .' / ' & ' .0 ' 2*. *' %& * , *' & ', /, F '- ,'* .' ' <* ' ,-* < + ' .' 6 . .' & ' & '< * B/ '* <+ .' 0 ,' & ,' , - ' .' ' +', -&'- , ', ' ' & *' /, - '?& -&' & '6 0&' & 7 '<* 7 .' ,' & '& .' / ' <* , ' / 0' ,+' 6 . .'* .' ' +' & '< * - *' - ' / ,+* ' & ' *' ' & ' ?+*. ' . . .' ' --+*. ' +,' & ' ?' & 'K?+*. ' 6<*,+ 6 * 'Q-' +*. * .' +' / ' ,'+

$ 4

25'151''' & ' &', 7 * D' 1, '6 ' / ,+* ' & ' * 6 ' Q'<* < * '8& *' , ', G'+,' -&' 1, ' +' / ' <+ ' & ')+66 ' <<+ .' / ' & '0 * ' -' +' ?& -&')+66 ' & ' - -',+*' , .'+,' 8'= *.'+,'3* ' & ',+ *' - - ',<*, .'* <+* .' / ' & ' #)+66 ' & '- -'+,' *' +& 'E '? &' & ' = *.' +,' >*+. '' .K & '- -'+,'E 0&' 7 ,+ '+,' + 0* ' * '* 6 .

4 $

25'151''' & ' &' G'. ' +,' * 6 ' & '- -' +,' & ' =+*.') *.*+,' / ' & ',*,'- -' (' +'-+ , . * + ' ' * ' ,< -' & * '& &' * . / '0* ' <* - .+*' 6 .' & * ' *H 6 ' .8+ * .' '%& *,. ' ' ' -+ (' .' ' 6 *' .' <*+- , '-+ .' ' & '6 ' 4' ' $

;' 8' 9

J%15'- 0' & '5+ '6+7 .' & ' & ')+66 '+,'1 - + ' 6 0&' 6 ' .' < * - * '-+ - * 0' & '- -' +,' *' 6 ' 5 6, '* 6 .' +' & 6' .' & ', 7 '+*', G'+, & 6' 6 0&' / ' ' F +* 6' ' * ,< -' & '. .' +' 6 ',* F '?& -&' ? _ +*. * .')), *. 0 ' .' & '? &' ', *,'+<<+* ' & '<*+ 4 - .' +' & ',+*, .'- -' B'

2R1''' & ' &'< * - *' 1, '6 '<*F- .' +' & ' +6 ' + 0'+,' & ')+66 ',+' / ' <<+ .

2R1''' & ' &',-*6 *')+66 '6 0&' / '-+ .4

%E1'1, ', < * .' +'-&+ ', G'+,' -&' 1, 'Q' * * .' & '1 * '+,')* ?,++*. +* + ' & 'R,-+ '+,'C 6 *' .' =+*.') *6 -& ' .'5 &7 ',+*' & ' =+*. ' .' 7 ,+ ' 3 *& .' 3* 0 ') D+. ' 7 *' 5 ,-+' ,+*' & '4> **+ N *' +& 'E ' GB' < ' K' 6 ' 6 ' ' +& '>+,? ' '5+/ *') .' . *' : E 6'E 6 + ',+*' & '> **+? ' +' / ' ')+/ 6 , + '+,' * 6 '?&+, ' 6 ' *' +' / ', .' <' & '/ (' .', 7 ' +' / ' F +* 6' +' 6 [' & '& 0&' + ' + , '&+ '

%E1'C 0' *' +' & ' * 6 '* .',+*' ,- . 0' & ',+*4 , *'+,' & '1 * '+,' 7 '%& 'K * 6 '+*. .' & ' *' +' / '* -+*. .' .' ,' +' & ', .' 1W* ' & *' +' * ,' ', 6' 6+ .',+*' . - 0' .'* ,- . 0' & ',+*, *' +*B +' 0 7 ' ' -',+*' & ' ,, -' '& ', ' & (', ' .' ' & *' +,' & ,' - - '0* ' ? ** .' +' - ' ? , ' ' & '1 * ' , -' ,+*' 7 *, 0' & '0*+ .'+,' & ', .'* . - + '

1%9%92 I 1' ,+*' & '1 '+,'> - ,* '* .' -* 7 0' $ G- < + ',*+6' & '0 * ' -' ',+* *

'3123' 31-' 6:-4%2!!' 43' "6' +-5843%"7' 27-73' H-636!%-%!!' 91-+873"a%3'+-!2%3,' . %#13' / -'+-25' & & A

25'151''' & ' &'1 * '+,'> - * '< + '&'* 6 .' +' & ', .')+66, , + ' .': , & ' ,? *

25'151''' & ' &') -'+,' .* ?' @ ' 0 , E 0&' : -'+,'9 0 , + ' / '* 6 .' +' & ', .')+66, +

25'151''' & ' &'- - '+,' & '1 * '+,'3 - * ' ' & ' ,+*, * '?& *+,'& '< .' & '-+6<+, + ' +' & '1G-& F *' / '* 6 .' +' & ', .')+66, +

%E1'< + '+,'% (* ,' ' = < ,' * .' .' = <) ' +*. * .' +', ' .' ,? *' & ' G'. '+,' * 6 ' 4 $

%E1'T+66,, + '+,') +-&'+,'> *&+6 '* 6 .' +' & ')+64 6,, + +0 & *' ? &' '+? + '< + '+' & ', 6', /8 -

' 2R1''' & ' '6 0&' / ' ,' +' & ' */ * 6 '+,' & '< * ' & *' +' << ' +' & '=+*. 'F,' ,, + '+*' & ')+66,, + ' ,+*' * H . - 0'+,' G +* .' /+ . ' .' & ' ' ,' +' & '< * ' ' & *' +< + ' +'< ,, ?',+*' < . * 0 'Q)' & *' / ,+* ' & ')+66,H , + '+*' .0 '2*. *

2R1''' & ', -&' /+ .' / ' * 6 .' +' & ' , + '? &' ' , * - + ' +', ,< .', -&' /+ .' ? &+ '- + '+*' -+ , 0 + ' ,' & ', .' 7 . -' & ' & '? * ' G +' .' +7 .' & ' & ' -* . +* '+,' & ' G +* .' / '+*. * .' +'. 7 *' & 6' < $ 4 $

25'151''' & ' ', -&' G +* .' /+ .' / '. 7 * .' <' * > ' -* . +* ' +' & . / +* ' / G' .' & ',*,' +,' I+7 6 / *' G' . *' & '< '+,'.+ / '. 6 .0 ' +' / '. - * .' 0 ,' & 6' - -' & '/+ .' / ',+ .' +' / ', -&' .' 2*. ' & ' *(' +,' & ')+ , ' .8+,* '+ & *')+ * ' +' . . 7 *' <' ', -&' /+ .' $ +' & '. / +* ' ,'* F * .

1%9%92 I 1' / 'E 0&' C . '-+ - * 0' %&+6 ' J *' 0 ,+ ' .') < ' : 6' + '* .' .' +*. * .' +' 9,K 5*' $ _' # #

* . - ?* 0 . 0 . ? + -+ , ,, + +* + & 6 + / 0 6 . , * +* -+ * / & * 6 <*+/ 7 . & - *(6 , -& - - , , . & 1+ 9 ? + - , * + , * & 6 / - ? + 0 7 + ,? * -+ ,+*6 & * + . & & /` & - *(6 , (& ; , . +, & + J /* * . ,+ + I & * & 6 , (+, , 0+ * , . +, 6 * . 0 * G 0+, , - +, 0 & & 0 +, & . ? 4 . & 1 * +,)* ?,++*. , 0 0 ,+ + 0 , * , * - & * & + / * F * . Q & , 6 & * ? + , /,-* < + * F , / ?Q . , - + 6 , - . - ? * + F . . ? + G- < . + +, 8 & . 6H . = ? & *. B0, +, & ,+*, * G<* , & , 6 * 6 & * , - + & *+, ?& -& 7 . < , * - & K7 * +, & ,

E+6 * < . & & <*+- , & , - +, 5 .- , 0 , 3+7 i ,+* / * 0 & &+ & &, , - & *+, * , *7 & - - - - 3+7 9&+ . / ,+*, . ?& -5 , <<+, & + . 0 0 4,+*, * $ # $ $ %E1 * .%& - +, * 6 * .%*)+66 , + * 3* - +*. * . 8 & , *, < - & - - +, & ,+*, . - +, * 6 0& / *0 . % . 6 : * . *0 0 ,*+6 & ,+*, . . 6 & & * , + + ,+*, * G<* , G- < . / + 07 * 0& + & / ++. . * . *4 & < *,+ - < / + , 8+ +,, - ?& -& & + ,, - +, & . 6 +* * 6 ,, + . ,+ &)* 6 , . 0 , * 6 . Q & * , +, * .+ +* $ & ,+*, * +& ? + + , . & *6 +, & , . - +, * 6 & & - * . - + %& - , 5 .- , - - * . ,+ & G- < + +, & - & . 6 4 * . . *0 . ?& & * & * ? * + # , - Q + * +* + +* , & , . -* ? * + * /F +* + * / Q / 0 -* 7 . + / < + & 7+ ?& & * & . -* / , . 0 +* +)* 7 . & & -* . +* /+ & +, = . *. . ? + 6 0& / * 8 - . ,*+6 7+ 0 $ $ $ 4 " $ 2 R1 ' & + & , -* . +* * 8 - . ?&+ - G< - + + & * < 6 / / & 7 +, & * .) + . ,+ . ? / & 7 +, & 7+)+ . ,-2F. . + * * -(E+6 * 5+/ * * * . - * & 6, 7 . / 0 < + & 7+ , & . -* K/ 0 +*. . + / , Q ,? * . + & Q * , . ? &+ - 1 0 * ? + ,? * & ,+* & * ,+ * 7 . -* + +* + Q) ** . 8 & 0 7

! %63 "6 31- Q%63-+, "6 31- 7%Q-+6%30 +-25 %7 2+!%2 . -73 D "+5-+-5 3" / -6% -5 8:

%E1 = .) , & 7 - - ! +*. * . + / /*+ 0& * *, 6 & G . . & & & < . & * .7+- . 7%^3 31- 42%4- "6 "7S!275 275 7%^3 31- 42%4- "6 9%73"7 275@ 31+2% 31- 42%4- "6 8+ : -3 275 31-7& -+6!275 275 31-7 " . . %6@ * + *+ & & &)+66 +, , ,, Q ,+*, * 6 ,+* - - +, & = *. B+, 3* 4 4 $ %E1 0 * - ,+* * ,- . 60 , Q ,+*, * Q 7 , 0 +, D 7 *, + -& . %& * 6 . 8+ * . + . & 6 6

& 8 9 J%15 - 0 & 5+ & =+*. * , . * . + & * 8 - . ?&+ - G< - + & * < 6 / / & 7 +, & * .) + . ,+ 6 * . ,-2F. . + * * -(E+6 * 5+/ * * * . - * & 6, 7 . / 0 < + & 7+ , & . -* K/ 0 +*. . + / , Q ,? * . + & Q * , . ? &+ - 1 0 * ? + ,? * & ,+* & * ,+ * 7 . -* + +* + Q) ** . 8 & 0 7

25 '151 ' & & * / * 6 + &)+ , + +*. * c & (,07 0 ? & . - ** 7 + & +-- , + Q & ,+ & * / <<+ . 6+ & , . * 0 & 8 , G< . + $ $ 4 # I 1 - ,+* . ,,+7 0 ,*+6 & 4)*+ , -& ,+*, . , ? * G . & * + & * 0 +, & C 0 6 * . , . / 0 < + & 7+ <<*+7 +* + - ** . <<*+7

I 1 - ,+** . - 0 +, & ,+*, * +, & 1 * +, 7 =+*. E 0&)+66 , + * & . , 0 . =+*. 7D * . ! * H 6 . + &)+66 +, , . ,+*, * +<* < * Q* <+

%E1 = .) , & 7 < < * .

2R1 ' & * ,< -)+8 + .7+- * / .7 * . +, & <<+ 6 +, * 6 ,+* & * 0 & & * 0 6 / . . , & G . +, * 6

4 4 3591 ' + / 6 = . ? * & 8< - / . & G . 6 . * <* , . & ?& ? -+ . & < + ?& -& 6 0& * , - <+ & =+*. > +B ? .+ / & = . & *, , ? &+ .7 - +, & * ? * . + . . , 0 + * , - <+ & =+*. / + 7 . - & 8 , - +, & * - ,

%E1 , . - - -+ . & G . +, * 6 Q +*. * . + -+6 & , *, < - / ,+* $

I 1 - ,+** . - 0 & ,+*, * +, * * -(E+6 * . %& 4- - +, + (. & *. . , * . / -+ . & $ G . %& * 6 .8+ * . & 6+**+? + - + (. 6 * . <*+- , -+ . & 6 8 6

4 84 4 0 0 J%15 - 0 & 5+ . & - - +, 7 * /*+ 0& & c G - + * . - . -+6< * - 6 . . / * + F /* <, , . , - -+ ,+*6 + & %E1 1 * +, *0 6+7 . & & - - 6 0& / & *. -+ H ,+*6 + ,+ K . , * +, &)+66 + & & + & -+ , . * + +, & - - +, + (. Q 5+* C S -+ . & . / -+ ,+*6 + & & 3 & +, -+ , & 6+**+? ? &+ , *,+ *. / . & & & **+0 +* . + & * & 0 6 0& / .8 , . 4 44 1%9%92 I ,+* >*+. +, = & 6 ,+* - 0 +, % -& . ,+*, D 0, * & *<*+- .+* 0 , 3* * .%& < + 0* . Q - + +*. * . % : 2 < + ,+* & = *. +,) +. * .%& 4. , * +, & , *,))+66 , + 0* . . & + & * < + * 6 . $ +, +)+66 +, G c 4 25 '151 ' & & 1 * +, *0 - - -+6 , *, + 4- - +, , + = .) , & 7 . ? + $ 4 1%9%9 I 1 ,+* * ' -) 6</ * . , - + K +*. * . / ,+* , + 6 +* 3+* , + . * 6 . + &)+66 + <<+ . ,+*, B . ,+*, * 51 25% +, &)+66 +, 1 - + & 6 0 < & +* +, / . +, 6 *(. ?/ >*++6& * .Q / 0 < + & 7+ <<*+7

52)11 '1 ' + & - - +, & = .) , & 7 .)+ ,+*)+& 0 + * <* , . , + K - +, * 6 C 0 6 & 44 6 07 0 <+? * + , + =+*. K+, , + . , 6 <+? * -+ . + &)+ .0 +, - , + ,

2,' & - -',+*' * 6 .',' ?'. *6 .' ' F ' ' &' - -',')+66, *' B .' .' ' &' - -',' & ' 1 * ',') . *' +' ' &' C 0' . .' 0 , '& '< , * ' &' << '-+ ,+*6 ' +' ? ',+' & ' &';- -',' & ' << ' ' ? &+ 4'<* - . ' .' +' ,+ 6. .' <+ ' &' . 6 ',' * 0&' ?& -&' .+ &' + ' +?'<*+ , + ',+' * 6 .',' ?'?& -&' .+ &' +', ' G - + 'Q' -* 7 .',*,' &', ,'+,' & ' * 6 ' ?& & *' '? * ' ?, L' +' <<

C S '* <* , .' & ' << ' ' &', ,'+,' & '< + '+' < < *'0 7 ' ' /' &' = . '? ' &', 6 '? &' '<*+ , + 4' ,+' * 6 .',' ?' +' 0 7 ' * -+ *,' +' & '< * '?&+' ? ' , .' .' '? ' . * ++.',+' / ' &' =+*. '?&+' . .' +' E+<',* *' <*<, .+*'87& -,' & '?+ .'& 7 ' .+*6' ,' & '& .' / ' &' 6H <+*',' & '<*+ m + ' .' 'F +'>'. .' &', - 4' &' . 6 ',' * 0&' & '<*+ , + ',+' * 6 .',' ?' * ' +? / ' # .' 6 0&'& 7 ' / ' / ,+* '? &+ '*, - + '+ ' & '&+ +* / ' -+ *' ' &'-+ * +,' & 'C 0' / ,G .'-+66+ '< '-+ , ' 0' +,' 6 ' ? *' .+' +' ++(' <+ ' ' ' '*, - + '+ ' & *'&+ +*' & ' , *', - '9&+ .' / ' /*+ 0&' / ,+* ' & ' * 6

&)+ '* < .' & ' *6 '+,' & '< < *'0 7 ' '/ ' & '= . '?& -&' ',*+6' & ' , + ' +' & ' * 6 ' ' &'<* - ,' *6 '+,' << D .',&+' &' =+*. ' .' +' & * <+ 'E+<'/ - ' & ' (?'?& '? ' ?' .' & ' << D'? * ' 0 ' ?' ' & ' .+ &' +' ' D. *' & ' & *'? ' +' << '0 7 ' '/ ' & ' = . '. ,, * ',*+6' '<*+ , + ,+* * 6 .'+,' ?' ' $

7 0
E+6 ' .0 .' & ' & ' ?'<*+& / 0' << '.+' * '+ ' +' & ' , + ' .' +' +' & ')+ .0 '+,' - '.' ' ?' <H < '.'<*+ + ',+*' * 6 .'+,' ?' * ' & ', 6 ' .'. H - * .' & ' ' ' . * ++.'/ ' & '= . ' .'+,, * .' +'* - , ' & ' --+*. 0 '%& ' -'+,' * 6 'C 0' 6 ' & 'J , & ' * ' ' & ')+ .0 '+,' - .' * < .' & '?+*. '+,' & '<*+ ' $, + ' .'+,' & '< + ' .' ' +' & ',, * +'. ' & '?+*. ' ?& -&' * , -'+ ' 8'&+ +*' +,' & ' , , + ' .'?& -&' * ' 0 < ' ?' ' ' +' +?' +' / ' .6 .' , *', -&' < / -'. , 6 + ' / ',<* . 0' +,'<* .'< < *' Q' ++(' , * 6 ' + ' & ' -H (+? .06 ' .'<*+. - + ' & *+,' ' ' E .' & ' ' 6 ' / '* 8 - .' .'* <*, .' & ' *' -',+*', , 0' +,'.+6 '. .' + '-+ - * ' , *+*' -+ * ',*+6' ?& -&' << '? * ' ,+6 ' / ' +' & ' , + '+*')+ .0 '+,' - ' ' 4

%E1' = . ', '+,' & '?+*. '? ', * & *4 0 .' '&4 * 6 ' Q' . - * .' & ' ' &', '< . .',+*')+ + '.7+- '9&' <,% .',*+6' ' .'? '-+ ' +' 6 .' & '< + '

$ $

25'151'' +'<*+- .' +' & '- , ' ' * ,< -' ' '. - * .' ?& ' ' &', '+,' & '<*+ , + ' ,+*' * 6 .'+,' ?'07 ' ' %&'-+ * -'+,' 6 ** 0'* .' , *' & ' . / '-+ - * 0' & ' <*+- .+*' .'?& E *' & '. -* '+ 0&' +' / '<*+. - .' 0* .'# & ' &'< *, ? *'<*+. -' ' . -* '/ ,+*' & '-+ - , + ' .' ' & ' 6 ' 6 ' & '= . ' & '< *) ? *' ,+*6 + '* (.' %& * , *')+, 0 + ' ,+*6 + '* .' ' ,? *',+*' & '= . '' ')+ 0 + ' ** 7'* .

)+ 0 + ' , *' * . 0'+,' & ' ,+*, .'< < * '* <* , .' & ' ?& * '* 7 ?' *' +? .',' 6 ' +'/ ' '.+ / , '- - ', *' , '- - ',+ . .' <+ ' '* -'+,',+*6 *' . - , +

%E1' = , + '-+ . ,- . .' + ' ' & ', 0'+,',,+ 6 '-' F * .'. * 0' & '6 ** 0' << . +' & '< 6 '+,' & '. / ' ,, - 0' & ' '/ ,+*' & '6 ** 0' ' , 7+ * ' +,' & '=+*.' 3+ 0 + *'Q' '<* 8 . -'+,' & '= . '-+ * -

)+ ' ? * .' & ' & '- , '+,', *' -+ F ' '. -',+6' & '- , ' ',+ 6 ' . ?'?& -&' ? * ' * 0' +' & '<*

. .'. ?'/ ,+* ' & '6 ** 0' , *' 6 -&'. / &'&+?', *' & ' <*+ + ',+*' * 6 .' +,' ?' 9&+ .' / ' * 0 ' +' <* 7 ,' - , (*' .' ++',* F '<*+ + ' (0' +,' & ' ,, -'+,' & ', - ' . / &0'< ' +' & 'F , + '5 ,- .' & ' * + '' F F*' +,' & '=+*. '+,' , + '+*' <<*+7 '- ** .'5 ,- .' %& ' * 6 ' .8+ * .' ' & ' 6+**+?' ' ?+' ' - F (' .' ' 6 *' .'<*+- , ' +' / ' -+ .' ' & '6 8*6 '%& ')+66 ',+*' ,+*m * ' +', ' ' 0&' '- + (' .' & ')+6 ' 6 '+,' G' ' 7 ' '- + (' 4

' ' 8' 9

J%1 ,'- 0'+,' & '5+ ' '< + '/ ' & '= . ') & 7 ' * 8' -* 7 0' & ' <*+/ + ' 6 ' / ' .' 0 ')+ 0 + ' / ,+*' & ')+66, + '+,' * 6 ' ' 6 .'%&+* '-* 7 .' +', ' '< + ',+*')+& 0 +

I :151'' ' &' . / '? '-+ - . .', ' & '/ '? ' / ' '< *'+,' & '<*+- , ' .' . .' +4/ ',

51 =A1'' ' & '-+ - , + ' '-+ * *' +' & '. , *'+,' & ' < + ' , .'+'?& -&'-* 7 ' '* 6 '+' & ' , + ' #

$ $
'D =A1'' & ' & ' 6 0'+,' & ')+66, + '& 7 0' *' 7 .', *' & '07 0' '+,' & '< + ' & '< * '.+ &'* ,+*6' & '. , *'+,' & '/ ' 4 ' ' 4

2R1'' & ')+ 0 + ' 6 0&' / '. - * .',+*' & ',+ 6 ' -F * .'/ ' & ', & *' ?& *+,' & ' ,, - '* ' G ' & 'd 6 '+,' & ' . ,,+ + ' +,' & '6 ** 0'?& & *' /8' < 6 '+,'. / <*+*' +' & '6 ** 0'* . 6 0'+,'?+., '+*' + & *? ') ** .' ' & ' ,, *6 7' .'/ 0'< ' +' & '7+ ' ,' '8+ '<*+/ + '9&+ .' / ' +? .' +'/+ &' / ,+*' & ')+6 ' 6 + '+,' * 6 ' 6 .' ' & ' -'* ,- ,,+*'+,' , ' .' ,+*, * ',+*' F . 0'+,' & ',+ 6 ',+' -F * .' .' / ' <*+7 0'/ '?&+,' 6 ' & ',+ 6 '? * 6 .' <' .' +'* <+ ' +' & ' G' , + '+,' & '+*+,' ' , 0' * 6 ') ** .' ' & ' ,, *6 7'!

%E1'* <+*'+,' & ')+66 '+,' 1 - + ' ' & '6 '* .' ,+' '6 6+* L'* .' & * '* 6 .' +' & ')+ '+,' G' ! +?&+6' ' +' / ' .. .' & '%& , * *'. < '=+*.'> & 7 ' *' +& 'E ' .' *' *-(' ** '? & '<+? * +' & 6' +' - '?& '+ & *'< *,+ 4' & ' & (8<*+< *' ,+'+*. * .' & ' & ' +, *' 6 6/ * '+,' & ')+66 '+,' 1 - + '-+ '+'8+ ' ? &' & '+ & *' F?' 6 .' ' +' & ' /+7 '6 + .'6 * f

9I%15523 %25 '07 ' '/ ' & '= . ' + (. +'= 6 ' 6 0+ ' .' K' : D 6'E 6 F ' +'/ ' -/ , . * .' / ' & 6' / ,+* ' & ' / ' G 6 .

' 1%9%92 I1' 07 ' ' / ' KK' *-&/ .' - * ' -* 7 0' ' /+ .'+,' >++' >' * 0'0* .' +' & '? , ' +'/ '6 . ' <' .' --+*. 0 ' '- + '+*. * .' 0 '& *' /*+ & *' . / +*' ' & ' 4 /+ .' .' ' 6 ' ' ' &+* S .' - * +*' +' << *' + ', G' . ' / ,+* ' & ')+66 '+,'1 - + ' .' & '? , ' ,+' +' # << * <+ ' ' ('- +

*' : 6'E 6 + ' G 6 .'+ '+ &' <+ ' &'= . ' + (' ' .' **+0 +*' ,+' G 6 .'+ ' : & ?' < **+0 +*' E/' 1 6 0+ ' G 6 .' + ' + &' P/ ' &' * 6 ' G 6 .' & 6',+*' ,+*6 + ZK' <+ ' &'= . ' + (.' **+0 +*' %& * '? '+ '+/8 - < ' 6 . ' 0 ,' *' : 6'E 6 + ' . <+, + '* .'= 6 0+ '. <+, + ' ,+'* .

2R1 '' & '+& *' ? , ' 6 ' ,+' / ' G 6 .' ' &' . , *'+8' : & ?

I :151 '' & ' &' ?+'? , ' G 6 .'? * '6 6/ *'+,' # * 6 8' (' / ' &' * 6 ' ,+*' & *' ,+*6 + ' %&' * 6 ' .8+ * .' ' &'6+**+?' ' ?+' '-+ (.' ' <*+- , ' <.' 6 *'-+ .' %&')+66 '+,',+*, *' +' 6 ' +'6+**+?' ' 0&' '-+ (' 'K /' &')+66 ' ' &'6

' ' 0'

"

J%15'- 0'+,' &'5+ ' &'- -'+,' + (.'- .' %& * 6, '* 6 .' +', *' : 6'E 6 +' +' . 7+ *' +', ' &'< * ' .' +'* <+*'& 4 . 0 -'Q'<*+0* ,'& * ' &' ' .' +'* <+*'& . 0 -'Q'<*+0* ,'& * ' &' ' . '+,' * 6

%E1' -'-+ - * 0' &'-* . +*' * '+,' 'Q-'+,',+*, ' < *,+ '* .

%E1' -' 0 '* .'/ 4< * 0* <&' .' , *',+6 ' 6 .6 ' # < ' +' '7+ ' <<?7 +*' +') ** .' <<*+7

' 1%9%92 I 1',+*' G . *' + *+'+,'> *-*+, '<* , .'Q' * 6 .' +' &')+66 5+ '+,'9 * 6 ' ,-, 'Q',+*, *

' 1%9%92 I 1',+*' : 6'> * '+,'> ,+ *'<* , ,

%E1'* <+*'+,' &')+66 '-+ - * 0' &'1 * '+,' 75' * .' ' ,+' &' -'?& * +' '* ' .' &' -'+,' .8+ * ' . - 0'& 6',+'* .' .' & '&'* -+*.' .', -'* .' .' &'. <+, + '* .'+,')+8 6 ,, *' + *+<') , +-(' . *' . + 0 *' .': *& 0&

'=1%%15' +' &'=+*.' 5 &'/ ' , *')*, * '* .' ' -'+,')+ , '* .' '&'-+ . + '07 ' +' 4')*, * ' 4/ ,+*'&'. <+ .' &+*S 0' = . ' +' * '? &'& 6'& *' ' ,+' &'-+ . + '& 6, 7 '0* .'/'= . '* .' %&'. <+, + ' +,' ')*, * '* .'%&' '+,' * - ' <* D', 6 .' +'- * '< *,+ ' +', *-&'& '* -+*.' + '0* 0' *'+,'* G + ' +'< *,+ '<*+- , .',+*' * ,+ '?&+'& .'/ ' . - .' + 0'<+, *+*' +' &'. - ' + ' .' G - + '+,' &', 66+ .' ' &'<*+- ,'+,'* ,+ ' / 0'&' '+,' *- '/ ,+*'/+ &'?& -&'? *'* .' , *'* . 0' &'?&+ '<*+- ,' &'C 0' .7+- ' *, 6 .' &'0*+ .'+,'' &<' -'* .' .'* <+*'+,' &')+66 ' .'. .' & '&' .7 * ,6 '07 ' +' &'*/ D' +' '.+ & *' ,6 '? ' * ,+'/ ' ,< - D '& 7 0'? ** .',*+6' &'0 * ',+*' & ' ,, -' -&'? '* <*, .' +' &' * 6 '/ ' '< + '/ ' 6'= . '?& -&'? '* .' .' &' ,*D + '<*+. - .' .',+' + 0&' +' +'&'* 8 - .' + '<* -' +',' /, -'+,' &'< * ' .' ' +' &'-+ ,< * - ' '1 0 .' ' : 6+'<*+7 ' 7 '/ ')+66 ,, *' + */' &'+ '& / '?),' &') , +-(' / 0' <*, '+' &'< ' .'?&+,'. <+, + '.+' +'<*+7 ' .' K ') *, * ' , 6+ '? '+ '* < .'7*& '&'? ' /, ' .'-+ * *',+' &'-+ . + '07 '& 6' ,+'* <*, .'& ' & * 4? ' '- * , '<*+. - .',*+6'E+ .'+,' &'1 * N -(' , ' .' / ' +'8-+6 ' .' << *' .' ' &', 6': ' * 8 - .',+6 ' '* -+*.' +' .' ' &'* . ' < '+,',+*, * '+,' &'1 * '+,' 0 ' .'+,' '+& *'1 * ' +,' 0 'E & ' .' 1**+ '?& *' &' +'5 G 0' +*' +

* G 0'. / +' 6<+*'? ' , , .' ' ' * 7 '0*+ .' * . - + '+,' & ',+*, *' .' ,+'/ ' &',N*6'+,',+*, * , -' &' *' '= *'+,'* G + ' .' & *' G - + ? *'<*+. - .' ' &'<*+- ,'? &'&', 66+ .' .' G - + &' G - + '+,' &'<*+- ,'/ ' ? ** '+,' * 6 '* .' . &'? , '- .' '/ 0'* 6 .+' &'R,-+ '+,'% */ %&',*'+,' & 6' G 6 .'+ '+ &' %& * , *' *' +& '= ? & * + '+,' &' +*'+,' &')+ .0'+,' -'- .' (? . <+ .' .' & ' *' *-(' E+6 '.7+- '- .'. <+ .'4 :@'E 8 + '+,': & ?'- 4. ,+'. <+ .' 5+*' ' 3C S ! +,' *, + & ' - .' ,+'. <+ .')+66 ,, *' + *+' ,+' G 6 .'+ '+ &'/ $'& '+ &' +'/ 0'6 * $'L' +'?*$ ' &'. <+, + ' +?' ('* .

' 1%9%92 I 1'+,' +& ' <* '<* , .' .'- + '+*. * .K' <+ ' , , '. ' 0 ,' &'. , . *' +' << *'/ ,+*' &' * 6 '+*')+66 ,, + ',+*, 'Q',+*, * '

%E1' -',+*' * ,- . 0' +,' &',+*, .',+*, *' 0 ,' &' 1 * '+,' 7 ' 0 ' * .' .' , *',+6 ' 6 .6 '< ' +' & 7+ ' <<*+7 '+*' +') ** .' <<*+7

25'151 '' & ' &'- -'+,' &'1 * '+,' *0 ' 0 ,' &' '* <* 7 4+,' &', & *' .0 '/ ',*,' (' +'F+ , . * + ' &' G'. '+,' * 6 '/ ,+*' '+& *'/ , 7

%E1' .7+- ' -* 7 .' & ' +?' &' -',+*' , ', - * '+,' &' -* . +*'7 , D' * +,' D'Q-'+,',+*, '< *,+ '/ 0'< ' & * '6 0&'/ '' . ' <<+ .',+*' <*+ - 0'!. -* ' ' &' <*+- ,'+,',+*, *' 0 ,' &2'< *,+ ' 0 ,'?&+6'<*+/ + h' ? ' * . ',+ .' .' +' <*+- .' +' .7 ,' &'<*+/ + ' ' +' & '* ,' .8+ * .' D' &' 6+**+?' ' ''-+ (' .' ' <*+- ,, 'Q'6 *'-+ .

' 8'TP Q

J%15'- 0'+,' &'5+ ' &' .7+- ' *0 .' &' &' * ' / '6 0&' <<+ '' 6 '+'-+ . .'/'<*+- ,' +,' * ,+ ' ?& -&'&'/'? ** '& .'* , .'<*+, - .' .'/*+ 0&' +',& ' 7 * '<+ 'Q'-* 7 .' &' &'&'. , *'6 0&'/'6 *(.' ' 6 ',+*' &' .7+- ' G+ * + h

' 1%9%92 I 1',+*' : 6'> * '+,'> ,+ *'* .'+,'-+ , &' +,'&'1 * '+,' *0 ' .'&' . , *' & *+,'0* .',+*'0 7 0' ')+66 , + '+'&' &** ,,'+*' 'F +* 6'+,'&')+66 , + *'+,' << '+,'&' & * ',+*' -+0 +,- 0' .' F . 0 &'< *' 9/? *'. 6 0' .'+' ('* '& * ' .'+'* <+*'+'&' * G' , + '+,'&'+*' '+& *' * 6

%E1'<*+- ,'&'1 * '+,' *0 ' 0 ,'&'* <* , V 7 '+,' &' .0 '+'& ' , & *',+*, * '- D .' '&' .'+,'&' /'Q' '&'0* '.++*'%&'< + '&'0*+ .'+,'&'<*+H - ,'* .

)5 R1 '' & ' &' . - 6 ' 0 ,'&'1 * '+,' *0 ' .' *+F +*' 0 ,'& 6'/'* .'?& -&'? ' --+*. 0 '.+

2R1 '' ,+*' &' . , . *4' &' , 0' &'1 * '& .'07 ' ' * < '/ ' * 0&' '<* ' & ' & '6 0&'& 7 ' '. ' 5' &'6+**+?' & ' & '6 0&' ,? *

I :151 '' & ' &' . '/ 0' , 0 .'< * 6< +* ' &' . , . *'6 '6 (' ,? *

)+ ',+*' &' . , . *' - .' & '/ 0' &'* <* , 7 ' ';' +,'&* '+,' &' .0 ' & ' *' +'/+ .'+' ,? *' , ' ' &' .0 ' ' &'<*+- ,'? * ' - D .' ' ,+' & ' *' +' +/ .0 .'+' ,? *' +'&'1 * ',+*'. 6 0'&'& 7 0' +' ' +'< *, ?' & *' *'+*' G - +*' +'& ', & *'

$' '

51 9%' / ' &' * 6 ' +' &'4)+66 ' +,' 1, ' +,' &' ,+*, .'<*+- '* .

=A>1==' ' &' , -' +,' *' +& ' J -& *' C 0' .7+- ' * .' Q' & * , *' &' G - + ' & *+,' / ' ' < *, 7 '? &' &' ,? *' 07 ' ' / ' ? + ' + &' .' & ' 6 + ' .' , /,-* 7 '/ '& 6' <+ ' &' / -(' ?& *+,' & *' ' K 6 '?* ' '/ * 0' . ' &' '+,' *-&' g ?&- ? '* .' .' & *' , *' & ' 6 ' + ' &' 6 *0 ' +,' &',+*, .' . - 6 ' .' &', -', /8+ .' & *+' .' & * , *' &' 6 ,, 7 ' *' , /,-* 7 .'/ ' &'. - ,' 1 * ' +,')* ?,++*.' +' ? + ' * .' .'/+ &' &'. <+, + ' +,' &' +?' 1 * ' +,')* ?,++*.' .' *' 5+/ *' - *' +,' 7 , + ' (' &',+*, .' *' ,' '? ' &' 1 * ' +,')* ?,++*. '& .'?* 0' Q' , /,-* < + ' .' ' &'. 7 * ' +,' &' *' +' 7 , + ' = . ' &' 1 * '. 0& *' ,+' 5+/ *' 7D')+66 ,, + *' ,+*')+ < *' . <+ .' & * ' 7 + '+ '. <+ .' ' &'. 7 * ' +,' &' *' %&'. -* '+,',+*, *' * .

2R1''' & '/ , .' &' '-+ .' ' &'$* <+*' ,+' <'+ & *' ?& -&' .+ &' * , ',*+6' &' . 6 ' +,' 1 0&' & ' & ' ,+*, *' ? '0 , .' ' ' ' .' &',+*, *' ? '+ ' +8' &' ' ' 'Q',+*' , * - 0' & *+,'<*+. - .' &'5 -+*.' +,' &' *7 !' ' ' &'. '+,' &', .'0 ,'?& -&' ? '* .

25'151''' & '&'0 * ' -'* ,- . 0', ' .',+*, *' .' &'-+66 , + ',+*'7, 0' &' D 7 *, ' Z'< / , .' +

I1' .. + ' +' &' -'+,8 ? + '* .' .'+*. * .

25'151''' & ' *' *-(' E+6 ' .' K' 6 ' 6+ ' /' .. .' +' &')+66 '+,' G

%E1' -'? &' &' .. + ' ' &',+*, *' +,' ? + ' / 0'< ' +' &'7+ '? ' <<*+7

25'151',* ' &'1 * '+,'= ? & *. '<*+. -

'%E1' . <+, + ' +,' &' ? , ' , ' &' . ' / ,+*' &')+66 ' ' &'- -'+,' + (6 .'* .

2R1''' & ' *' : 6'E 6 +' 6 0&' / '* G 6 .' <+ ' &' ?&+' 6 *' *' : 6',+*6 *' . <+, + '* .' = 6 0' + ' . <+, + ' ,+' * .' = 6 0+ ' * G 6 .' ' <+ .' & ' &' &' &' *.' : , ?', ' & ' &',+*, *' ? ' +' &' + ' / &++,'Q-

%E15 J%15' &'F + '? '< '?& ', + .' / ' &'F + ' +' / '< .' +' 2*/ , + ' .' : , ?' :& *? &' &' * . - + ' +,' + (+. ',+*, *' ' +' / ' / *& .'?& *' &', 6 ' ' +' / ' ' < *('+*' ' ,' -+ ' .' / ,+*' &'7+ ' 0* .' & '?& 7 *',+ 6 '/ ' . *, < .' &', 6 ' & '/ ' ? &'. . - + ' +,' &',+ 6 ' *+6 .'? &' / '2*/ , + ' .' : & ?',*+6' &' . / +* '+,' 2 (.' / '7 * ?'+,' &' ,+*, *' .'? &' &' / * & ' +,' -+6< 0',+*' &' * ' +,' + (. ' .' *+6 .'? &' / ' & 6' &' * ' +,' &', .',+ 6 ' +' / K . *6 .' / 0', *,', .' .'-& *0 .' Q' &'7+ '& 7 0'<*+- . .' '6 *',+*, .') ** .' &', 6 ' +' / ' *(' , ? *.' 6+7 .' & ' &', .',+ 6 '6 0&' / '<*+<+* + .' / G' 2*/ , + ' .' : & ?' / ' &'7+ ' +,' * 6 ' : & 7' ,? * .' '<* , -'+,' * 6 ' & ' &' ? '-+ ' & ' &', .',+ 6 ', + .' / '<*+<+* + .' / G' & 6' / '2*/ , + '& 6, , '2*. * .' & ' &' +,, *' / '6 *(.' ' &' ' .' '* ,< -' & *+,',+ .' +' - , '+'<*+- .' +' '7+ 'Q'+*. * .' & ' &' / , ,'+,' + (.' / ', *,' (+' + , . * + ' &' G'. ' .' +'2*. *' &+?' &' -+6<' .' * -(+ 0' & '<*+- .' & ' &' , 6 '6 '/ '. *6 .' . ' & ' .8+ * .' ' &' 6+**+?' ' ' -+ (' .' ' 6 *' .'<*+- ,, '-+ .' '

' 58' 4

J%15'- 0'+,' &'5+ ' ' -' ' &', , * ' .' + & *' ' &'6 , -+* '+,'- *.' '= &' /+ &'* 6 .' +' &')+66 '+,' * 6 ' ' <<+ .',+*', 'Q',+*, *

'51 25%'+,' &')+66 '+,'1 - + ' ', 7+ *' +,' &' %+ '+,') *+,' ' ' 6<+, + '+' D' .* (' / *' .' + & *' F +*'* .

$

I1' -',+*' 6<+, + '+' &'%+ '+,'1.'+,' &', 6 ' *' * .',+*' ' *'? &' ' . 6 ',+*',+*6 *' G - + '+,' & '(.' <<+ .' +' '+< '+'/ ',

%E1' -' ', 7+ *'+,' &'%+ '+,') &+,'* .' *+- . .' +' & 4' . +,' &'%+ '+,'1.8\ -' *' +& ' .' . , * .' ' / & , '+,' &'9& *' +,'1.'?& -&' &'* <* , .' & ' & 4' -' 6 0&'/ '. .' ' &' & * +*' +,' &'9& *' 6 0&'/ ' & *.' / G' & 6' .' &'%+ '+,'1.K'%& *' ' '-+ * -' G ' ' &'6 *' . .'+,'-+ , ' ' &' G'.

%E1' -' '&', , *'* .' .' , *'. / '* 6 .' +' &')+66 '+,' 0&' +' / ' .8, .'/ ' & 6' &' 6+**+?' .' /*+ 0&' ' &' G'. ' .' &'<*+7, + '/ '6 .' & ' ,' &' ,+- '+,', , *'/ '. +7 .' & , '?&+' *' +' & 7 '<* 7 .0' +,', , 0' & ' &' / '+*. * .' +' 6 (' .' - *' & 6' + ' +*', ,, -

' 1%9%92 I1',+*' &'-* . +*'+,' &' *' +,'> *0 '* ' 6 .' +' &')+66 '+,' 0&

I1'+& *' < + ',*N' &'=+*.'> *0 ' 0 ,' *. D '* H 6 .' +' &')+66 , + '<<+ .',+*', ' .',+*, *

I :151 '07 ' '/ '= < , ' +'% (* ,' /5' * %' * H 6 .' +' &')+66 '+,', ' .',+*, *

I1' -',+*8 ,- . 0'+,' - ',+*' / -+ ,+*6 '* .

I1'+& *' -',+*' ,- . 0', 7 * ' - '+,' *8 8 ,'* .

%E1' -' ' , '+*. + ' +' _'* .' .'. H , * .' +'/ '*,- * . .'%& ',+*6 *' -'-+ - * 0' + -+ ,+*6 ' * .m'%& ' /' , + ' &', -+ .'-& < *' & ' 4 * 6 ' &' ',*,'C 0')& * ' &')+<.' 'D 7 *, '* .' &' -'+,' * 6 ' '-+ 7 - '* .'%& ' -'+,' * 8 ,' ' . +*. * ' / < ,6 '* .' -'\' * 6 ' ', < * + ' * .' -'-+ - * 0'-+ 7 - ' ' &' &*.' , + ',*,' * H 6 '* .' -' '4' < * 6 'C 0')& * ' &' -+ .' ', - * 0' &'< -'+,' &'-+ * '* .' -'4+/ .0 0' & ,/ .' +'/ ' / ',+*' *'?, ', D '* .' -'0 ,'&+ ,' .', .'-+ 7 - '* .' ,+' &' ' -'+,' &', 6 ' * H 6 '* .'?& -&'? * '-* 7 .' +' / ' * ,- . .'%& ' + & *' -' * ,- .,+*'* .'%& ' -'+,' * 6 ' '. - 0' G-+* ' 6 - '< *,+ '* .' '+& *8 -'+,' * 6 ' ', - ' +,' G-+66 - + '* ('%& ' -' % * 0'% ' 8, '<* H *+0 7'< 0' &'<+ '+,' *,. - + '* .'%& ' '+,' &'+ & *' - '* .'?& -&'? * '(+? '* .'%& ' -'-+ - * 0'&+ ,' .', .'-+ 7 - '* .'%& ' ' -' ' &'% , '%& ' -' ' , - '+,' -'* .'%& ' ' -' 6890 6 ' ' * .' .' &' ' -'+,' * 6 ' '< , 0 *'* .'%& ' ' -'+,' * 6 ' ' &'- *0

>2%E' &', .' - '/ 0' 0 '* .' .'< ' +' &' 7+ ' : *' <<*+7 '> '/ ,+* &'7+ ' : 6' 5+,')+66 , + *' ,+*' % '<*+ , .' & ' &' . ,6 6/ * 0'+,', 7 * ' . ' ,*+6' &' & *'+,'5+,' +')*+6 * '/ ' &' -'6 ' +'<* 8 .0' &'<* , ' -(' +*' , *6 '+,' &'1G- ,'?& -&'? ' .6 .

2R1 ''' / '& ' 3* -' & *' 8 , '& 0&')+66 , + *' & ' *' *,< -' '? '+ .' '9 * * ' & ' & * ' ? ' ', /6 , + ' +' & ' 3* -' ' & '- -' / G' & ' 1 * '+,' = ? & *. ' .' ? +' / ,+* ' & '<*+- . .' +' '7+ '. , * .' +'(+?' ?& & *' & ' * 6 '. .' <*+- .' +' & 'R+ '+ '-+ , . * + '+,' & ' , .', /6 , + '+*'+'-+ , . * + '+,' & ' ' .' & ' & ' , 6 '6 0&' / '. *6 .' / '7+ '+,' * 6 ' ,+' '< < *' * .' +' & ' ,, -'?& & *' & '$<*+- .+*' ? ' <+' & ' --+6<' +,' '+*', /6 ,, +') ** .' +' / ' +' & ' --+6<' +,' & '

%E1'< + '+,' & '%+ '+,'9*? '* 6 .' +' & ')+66 ' +,', 'Q',+*, * ' .',' '/ ' +' & *'-+ - . .' +' & ', .' #)+66 ,, +'+,' * 6

' 1%9%92 I1' *'%&+6 'Q'= ' ? * ' '& *' / * ' ?* '* 6 .' +' & ', .')+66 ,, +' $ $

I1' -'-+ - * 0' & ', < * +* '+,'> &+<'7 , '* .' +' / + 0' +' & *' 8 , ' .' & ' & ', .'7 , '9& '&+ .'+,' . *' 8

25 '151 ''' & ' & '?+*.' 66 . '&+ . 0' +,' & ' / &+<' / ' .. .' +7 .' & ' & *' / ' ' * , *7 + ' ,', -&' < *,+ ' *0& '?&+' & 7 '0+ '0 , ',*+6' & 'C 0' +,' , ', < * +* ' +' / ' <* 8 .0 .

I1'+& *' -' +' & ', 6 '< *<+, '* .'%& ' -' +,4 * 6 ' # XP--'* .' '& ' G + '+,'& ' 8 , '<*+< * ' .' & ' -'+,'& ', 6 ' * 6 ' '& ', < * +* '+,'C *(' .'* .' .'& ' -'KD' * 6 '' ,e''eC 0')& * '& ' -+ .'* .' 'F , + '. .' * ,'-+ - * 0' & '7 , '+,'+ & *' C *(' .' & '> &+< ' .'?& & *' & ', '&+ .'+,' & ' C 0' 66 . ' & ' & 7 <0' -+ , .' +' &+ .'+,' +& *' , < * +*' .',+' *', - * '/ ' & ' , - ,'+,' & ' -' KD'A ' * 6 'C 0')& * ' & ' -+ .'?& & *' + ? &, . 0' & *+,' & '+ 0&' '&+ .'+,' & 'C 0' .'?& & *' & ' -'+ 0&' + ' +' (' ,, -' ' 6 '-+6 0' *0 .' & ' & ', 6 '+ 0&' +' ++('/ -(' ' ,' ' +' D' & , '?&+' & .'-+ , .' +' &+ .'+,' '+ & *'<* - . 0' & *' ', 0' & ', .',-'. .' ,+%++(' '/ -(' 9'? '< ' +' *'7+ '?& & *' +'<*+- .' +'7+ '+*'. *' 6 ' ' & ' -'+*'-+66 ' & ', 6 ' +' & ')+6 '+,' 0&

%E1'+& *' -' 0 '* .'?& -&'* '+ ' +' & 'R , '+,' > &+<' .'/ 0' < ' +' & '7+ ' <<*+7 '+*', ' * . <<*+7 ' B' $' '#

I1' -',+*' ')+66 ,, +' +'7 ' . ' .' < 'C *(' * .' 0* .' & ' & *'/ ' '+,' 7 * '1, '+' & ')+66 ,, +' .' & ' '/ ' 'F +* 6'/ 0' ?+'+,' -&'1, ' .' '2,, -*' +' 0' 0

%E1', 7 * '1, '+*. * .' +' 6 ' / ,+*' & ' * 6 ' +' &+ , ' & *'* ,< - 7'6 6/ * ' 2*. * .' & ' & ') *(' +' & ')+ 7 + '+,'> **+ '07' 'B+' & ') *(' +,' & ' ,, +' .' * ' & '<*+<+* + '< / ' / ' & '* ,< - 7' / *0& ' ' & ', 6 ' * ' .'9& ' / ' .8 , .' ' ' & '0 * ')+ H 7 +'+,'& '> **+ ' .' & ' & ' - ' '& ', << ' / ', D .' < --+*. 0' +' & ', .'* ,< - 7'<*+<+* +

'51 25%'+,' & ')+66 '+,'1 - + ' ' & '6 (0' <' +,' ' / .'+,'<,+7 , + '0* .' +' *-&/ .' - * '?, ' * 0, * ' ' ,+' & ' G - + '0 ,' G')+-(/ 6'. , . *' .'& '- * +*' .' & ' G - + '0 ,' & '? , '* .'%& ' < * 'Q'? , '- .'/ ' '6 - *' ' & '0* '.+ ,,'%& '. <+' , + '+,' *' 5+/ *' - *' +,' 7 ,+' 07 ' / ,+*' & ')+66 '* .' '<* , -'+,' * 6 '& ' .& * .' & *+' ,+' & '. <+, + '+,' ' *-&/ .')+-(/ * '+,'= 0+ '* .' ' ('6 *' & ' .& * .' & *+' %& ' . <+, + '+,'5+/ *

> * '?* *' .'?* *' +,' & '/+ .'* .' 7 ,+ '. <+, H + ' 0 '* .'E '? '* G 6 .' <+'+ &

%E1'- -'+,' / (&.'- .' .' & ' -',+*' * , . 0' & ' /*, *'+,' & '. - ,' + (.'* .' .' & ' / ' .' *' +F +*'<*+ - .' 0 ,' & 6'* .' .' & ' -+ , ,, +' +,' & ' , .' + (.' ,+'* .'%& '. <+, + '+,'? , '7 *. -'+,' & ' , ' .', - '.+6 '+,',+*, *' ,+'* .' .' & ' -'/ 0'< ' +' & '7+ '? ' <<*+7

I1' -' ', 7+ *'+,' & '%+ '+,'1.',+*'5 0' & ' & / +' ',+*' & 'F + ',+*'6 & 0' '-+6< '+,',+ . * ' +7 .' & ' & '< *,+ ' +'/ ' 6<+ .'/ ' '< *,+ '+'/ ',+ . *' .' & ' & '>' / ' +B & '6 , *' 6 , *' 0 * ' 2*. * .' & ' & ')+ .0'+,' , -'/ ' G- < .',* ' & ' -'-+ ,+*6'+' & *' <*7D .0 '%& ' ('6+7 .'/ ' &,'=+*.') *.*+,'3 * '+,' & ' 6 ' & ' & '+,, - *', *7 '+,' & '6 ' / ' G- < .'-+ ,+*6 '+',+*6 *'- , +* ' G- <'?& * ' & ' G *- , ' ' * . ' .'/ 0',c 6 . .'? '* .'Q'/ 0'< ' +' & '7+ '? ' <<*+7

%E1'* <+*'+,' & ')+66 '+,' G',+*'0* 0' '- + ' +' & '= . ' ' * '* .' .' <<*+7 '

% 91' +*'+,' & '/+ .'+,'<*+7 , + '/ ,+* '6 + '?& *+,' & ' +*' '-* 7 .' +' / '<*+7 '* .'>+ &' 7 ,+ 'Q'= 0 + ' . <+ .' & ' & '/+ .' +,'? '+,' 8' +*'* .'+*' +' & ', 6 ' < *<+, ' D/' & '. <+, + '+,'5+/ *'> * ' 0 * .' & ' , '+,' & '. <+, + '/ ' & ', & *' +' & ',+ ' * , ** 0' ' / .'+,'<*+7 , + ' +' & '. 0& *' & '< *, * +' G- . 0' ' /', * 0' .'/ 0'< ' +' & '7+ ' ' - * ' ' & ' +*' .' <<*+7 '+,' & '* <+*'+,' & ')+66 ' '+*' +') ** .' '& ' ,, *6 7' .' & '. -* '+,' +*'+*. * .' +'/ ' G* - .' ? &' & 'F '& ' & ' * '+,' & ',+ 6'-+ .' ' & '/+ .'9&+ .'/ '+ '< / ' ' & ' G' *6'+,': & ,G6. ' +*' * 6 ' , *'& *'6 * 0

' 1)= 51 ''' & ' 6+ 0,' & ',*,' / ,, , ' G' . ' & ' ?+ .' <*+- .' +' & '* <+*'+,' & ')+66 ' ' & ' * . - +'+,' & '1 * '+,'% ** ',+*, *' .' & ' .8+ * .' ' & '6+**+?' ' ' '- + (' 2*. * .' & ' & '3+66 ',+*' , ' .',+*, * ' .'+,' 0&'6 ' ' 0&'' - + (' .' & ' & '6 6/ *'P ' * 6 '6 ' ' ' '- + (' +' &+ , ' ' +'+,' -&'1, ' +'/ ' , *' ' ')+66 ,, +',+*' & '7 ' +'+,' & ' . ' .'< 0'+,'C *(

' 8' 9

%E1'<* * / 0', .'%& '1, ', < * .' .'<* < * .' & *' , '%& * , *' & '6 '+0 & *' .' '5+ '- .'%& ' ,Q' +,' & ', '-&+, '? *'* .' ' * 6 '78' 1 * '+,' *0 ')* ,+*.' & * .'= 7 'R , + ' * %+'6 & ', -+ .': . ,. '+,' I+7 6/ *' .' & '?&+ ' -'/ 0' < ' +' & '7+ '? ' <<*+7

%E1'< + '+,' 6 '3+*.+ '+,')* 0 ?'* .',+*' '* <6 ' 6 . + '0 ,')++ '20 &+*<' '& *' 8 , ' .' & ' . - * ' '1 0 .

' 1%9%92 I1',+*' 6 '5 6, '* .' .'- + '+*H . * .' 0 ,' & '1 * '+,' ,+*& ' & '& .'/ *0&'+,' & ' 9& * '+,'5+,

I1' -' ', 7+ *'+,' & '/ *0&'+,': , *' , * & *',+*' . H - * 0' & *'*0&' +'/ ' '/ *0&'*+ '* .'7+ .' .' <<*+7

I1' -',+*'* * 0' & ', '+,' & ')+66 ,, *+',*+6'2 .' / *. '+'I ?' / *. ' .' & ' -'TPP:', 0' & '8 . -

9%' ? '* <* , .' '&+' &',+*6 *'0, ' .'-+ 6 + ' & *+,' .' G - + ' <+ ' & ' --+6<' ? *' 0 D' '07 '/ ' &'C 0' ? &+ '-+ , '+,' * 6 ' .' +' ' +'<* - . .' /' &', .'-+ * - .' &' - ,, '+,' &' + '+,'1. / *0&' +'& 7' &' 6<+, + ' <*+<+, .' ' &' -' '- * '. 6< , * ' ' &' -'%&'- '+,'1. / *0&' &'6 *+<+ '/ 0' . *',+' G* +*. 0*' / *& ' &+' < *& <' & *' 6 ' /' +/8 - + ' 0 ,' &' 0&' +,' &' 6'+,' &' 6<+, + ' ,+' *0 .' & ' &' .6 ,* +*'+,' &' + '+,'1. / *0&' & '-+ .' +' <* - .' & *', -- ,,+*'/ '' -+ * -' .' &'- -' ' +'+ ' & '-+ - *' +,' &'9& *' +,'1. / *0&' / ' +,' ' &'+& *' 9& * ' ' +' &', '+,' &'/ *

I :151'' & ' &'- -'? '+,'0 * D'-+ - *' &', /8 -' $/ 0' &' / *' + ' +,' &' 6+,' -+ , . * / '<*+. - '+,' &' + ' .' &'+& *' ?+' , ' + '-+ - * .' ' '?&+' *' 0 * ' /, ' .' &' / ** ' & 6, 7 ',* F '?& -&' ,' & ' -'9&+ .'< ,' '? *' ' 6<+, + ' / '+ ' , ' <+ ' $ &'+& *' ?+',+' '? '6+*', ' +' 6<+, ',+*< & 0' +'/ ' G - .' + ' '+& *', /8 -',+** 0 ,'78' /* . ' +/ --+'Q-',+*' &' < 6 '+,' &'+ '. /'Q'. , * .' & ' &', 6'6 0&'/ '* . ?&- ? '--+*. 0 '.+ ' 4
$

%E1' -+ 7 - '+,' & ' -'? ', -+ . .'Q' *0 .' .' & ' &'-+ * -'? '/ . 0' <+ ', -- , +*'/ 0' . - * .' +'/ ' ' < *'+,' &' * , - + ' .' ' ' 0 ' &'< / -', &',+*' &' F0, * ' +' &'<* 8 . -'+,' &' -+66 '+,' &'/* ? *' +' ,+ -'&'< ,, 0'+,' &' -'&+? 7 *' &' * 6 '6 0&'* ,- .' ' & ' -',+*'< / -' , '> '&' -'.+&'+ '&' &'0, '? ' $ $ I1' -'* .'-+ - * 0' &'6 ' +? 0' &'+,, - *'+,' ' 0 ' .' 7 *', - &'- 6'+,'* 0&'. - * .' &', 6' +'/ ' 4 6 ' +' 6<+*'/ 0+' .' & ' & '6 '/ ' 5+? .' ' /' 0*+ .'+,'7 -- 0' &' &*+ ' , & ', 6 '<*+<+, &' ' . 6H -+ ' <+ ' &'E+ +,', 7 *' '< -'+,' ' /',+*6 * ' +? .' ',+*' & ' .' '<*7 .0' +' -+ ' &', 6'/ *& ',+*' ,+*' / * 0' &' G<) -'+,' &', *7 -' &./ 0' < ' +' & ' 6 ' *' .' &' +' ' &'/* 7 *' F , +'?& & *' &' +? -' ' &'/ +',&+ .'/' ' /' ?&+' & 7'/ ' , .' +' +'-+6< +' &',+ '+,', 7 *' ',+*6 * '+*' ' /') ** .' ' /

51 51 1I%1'' ,+*' &'C 0' ,' &' -+ 7 -' +' &'-, +6' +' ' &' 6<+, + ' <+ ' &',+** 0 'a_+6 +. ' .'?&-&' ?+ .' ,< - D' ,+' / *& ' &'9& *' +,' &' 1+? & ' ' &, ' G' .8 - '?&+'-& , '/ ' & 6' .' & *,+*' &+ 0&' ' / *' +' &' / *' &' 6<+, + 4' / 0' ? Q', .' .'+*. * ' << .' .' '/ 0', *,'<*+<2, .' & ' '6 0&'/ '7+ .'?& & *' & *',&+ .'/ ' ' 6<+, + ',+*' &' * , +,' &' + '+,'1. / *0&' .' & ' &' G'7+ '6 &' / '?& ',&+ .'/ ' &', /8 -'+,' &' 6<+, + ') ** .' ' &' ,, *6 7' & ' & *', +D .'/ ' ' 6<+, + '0* .' ', 7+ *' +,' &' + ' 1. / *0&

2JJ151'' / ' &'R,-+ '+%'% */ ' +' (' 6<+, + ' <+ ' &',+** 0 ')+66+. ',+*', 7 ' *' ' 6'+,'< -' .' < '-4444'6 *(' +' / ' << .' +' &'< 6 '+,' &' + '+,' 1. / *0&'. /

TR1'' & ' &' 6<+, + ' 6 0&'/ '< ' , .'+,' / *' ' 6'+,'< -'+' &'? ' /* . 'Q-' ' ?' 6<+,'+,' ' >' -+ '+' -&' '+,'R7 '*<<+* .' : & ' &'/ *0&

I :151'' & ' &' / *' 6 ,,*'/ ',* '/+&' ' 6'+,'? *' .'< -' ' ' $

2R1'' & ' &'6 *' +,' &' 6<+, + '6 0&'/ '* 6 .' +' ')+66 ' +' .8 ,' ?&0'? ' &' <+, < ' ,&+ .'/ ' .'+' +' 6 (' &' 6<+, , + ' ,, - D 'F+ ,+*6 ' +' &'7+ '+,' * 6 ' .' ' &'6 ' 6 ' +'-+ ' &',+*6 *' * <+4' , + ' &' *'+,' &' ?' 6<+, + /' .8 , .

2R1'' & ' ,*' &'7+ ' 6 0&'<*+- .' ?& &,' &' ,+ .' ,&+ .'/ ',+** 0D'+*' .'-+66+. ' .'/ 0' < ' +' &' 7+ ',+** 0 '+*' .'-+66+. ') ** .' &',+ .' +'/ ',+*H * 0 '-+66+. ' ' ' !

%E1' =+*.' * , . ,' 6+7 .' & ' ' * ,< -'?& ' &' -'&' , 7+ * ' +,' &' =+*.')+66 ,, + *' 3* -'? '* .' .'7+ .' & *' : ' ,+6', ' 6 .6 '+*. * .' : & -&'-+ .' +'/ ' ?* ' .'* .' 0 ' ' &' 6 ' '/ -+6 0'. *(' & ' ,* , ' 6 .6 '6 0&' +?'/ '* .' .' &' &+*S .' +', 0 ' &'# -,' ' 6 . .' : & -&'? '+*. * .' , '* . 0' +,' &' 6 .H 6 ' .' ,+' +*. * .' & ' &' =+*.' * , . ' 6 0&', 0 ' G* -'+,' &'6 ' ('Q' G . .' ' C'< , 0+,' &', .' -'. . - 7' ', 7+ *'+,' &'=+*.')+6? ,, + *' 3* -

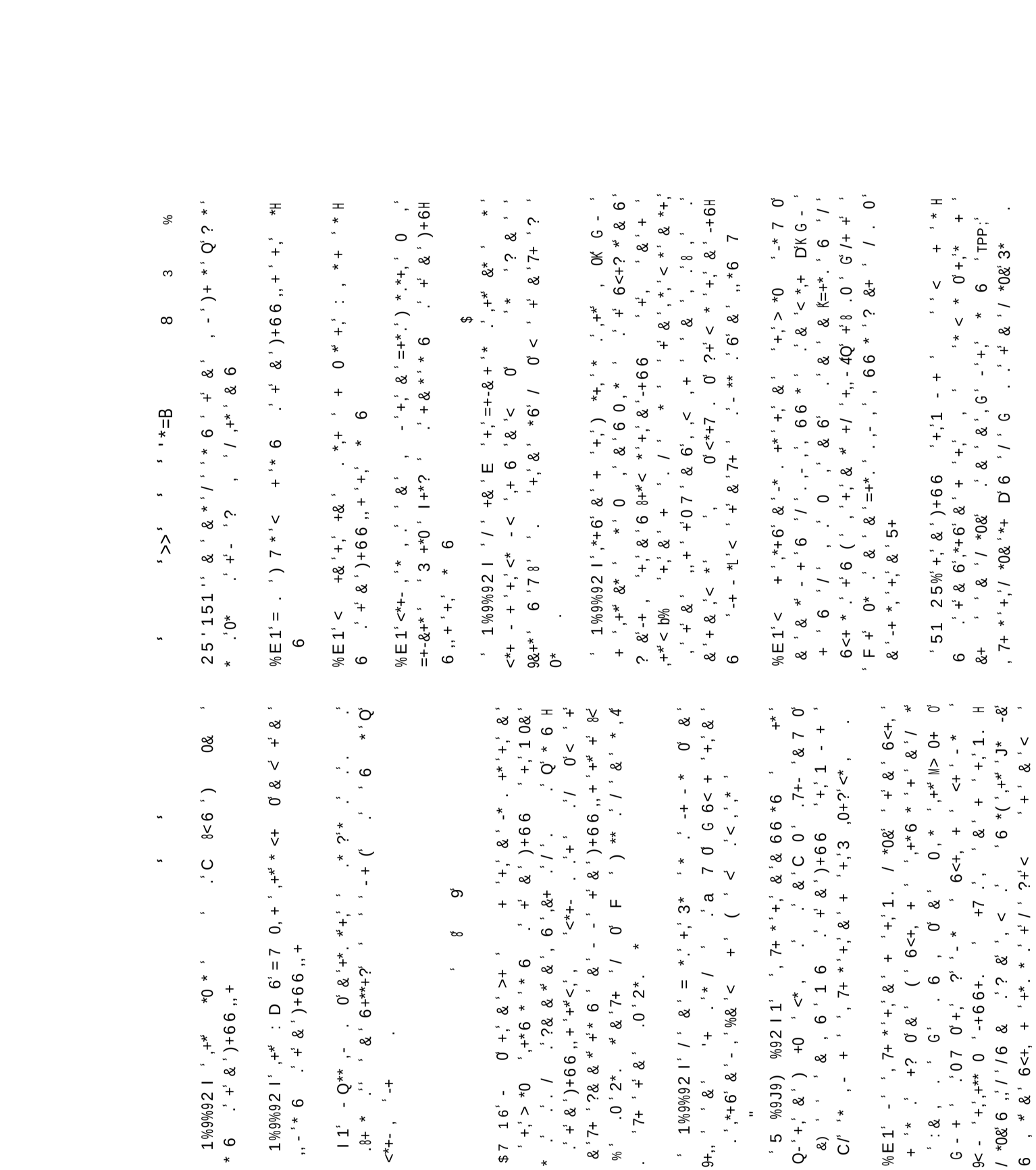
%E15 J%15' D' -'* .' -+ - * 0' 6 , *' 77&+' *' . <*7 .'Q'<* -&' ')& *-& '+*' , ?& *'? &+ '<* 0',+*' C 0': 6'Q'T ' *'. ,-& *0 0' & 6',+' <'<* -&' ' & ' ('&'+ &+,' .0 -' .'// .0' & 6'+'<* ',+*' C 0': 6' .' T ' *' ' +' +'<* ',+*' & ' A' %7# 2.-,' & A

' 52%1 % %92I1' 07 ' ' .'* .'/ ') .. ' .'/ ' '7.'>*+. ' ,* *' .'/ ' G .*>*+. ', *'+,' = & 6' 0 ,' &'7+ ' ', 7+ *'+,') +. '?& -&' ' +' + -& .'? ' 6 .' & ' &', 6'6 0&' +'<* 8 .0' & ' & * +*' +,' & ' ,& *'+,'I * '* .

I1' -'+,' 9 6 ' ' 6, 7+ *'+,' &'. - ,') +. ,*' <<+ 0' '* 7 + '%&'<*+ , + ' , *' 6 .6 ' * .' D.' ,' +' & '3* -' & '=+*.')+66 ,, + *' +' + -&' & ' -' '& ' & (',

' 1%9%92I1',+*') .' E 6 + ' +,' > * ',+*' & 6, ,' .' & '* 8 '& * +*'+,' & ' & * '+,' 'G6/ * ' * 6 .' +' & ')+66, +

1%9%92I1' ':, 6')& ' 0 ,' K': 6' *,+ ' .' ')+ ' C S '* 6 .' +' & ')+ , +



25'151''' & ' &', 6' 6<+d + '/ '+'5 &'? ' & ' '
+'J* -&'? ' .' & ' &', 6'/ ' , *' ' &' + ' -

'E9' 8, ' *'* .',+*. , / 7 0' &'1 * '+,' 7 ', '
,*+6' &')*+ '* .' .'+*. * .'+'/ '* -+*. .' ',+'+*. * .'
'* ,< -' & ' &'1 * ' '& ' 8, ' &0&')+66, + *' &
& *'/ '',< - ' -'+,'. .,+ + ' '& ', 7+ *'* 7'+'&'
, .' *' / ' & *'/' * . ''0 * L' -'+,'.&%+ + '<,

I1' -' ?, '* .' 6<+ * 0' &')+ , D'+', - * ' ('/+ .'
&+*, '+*' *6 ' +,', ,< -'< *,+ ' .' '< ', .*' < *,+ ' '
& ' & (', '+', /,-* 7' '- * , - '+*'8. - * + ', /8+ .'
+'- *' &', , '+,' &'+ &'+,' .0 - ' +7 .' & ' &'
- *, - + '6 '/' .. .' +,'+,', +,, - '/ , - ' .'8 *,'
. - +& ' .'/ 0'< ' +' &'7+ '? ' <<*+7

I1' -'* .',+*' -& 0 0' & ' *6' +,'< 6 ',*+6': & '
, . ' .' * 6 '+') . ,6 ' .' * 6 ',+*'<* - < '
',+ 6'Q' '* ',+*'<* 6+ + '* F , +

I1'+& *' -'* .'-+ - * 0'0, '+,', +,, - '0* .'/ '&'
C 0'?& -&'*' '& ' 8, '0,' 66 . '+'/'<*, ** .'
+'0, '0* .'/' & ' 'C 0' 6 '+'* * ? .'/'& 6' ',

I1'+& *' -',+*'-& 0 0' & ' *6'+,': , . '+'& ' '+,'
'+*. * .'+'/' '/ *0&' '? D' ' .? *' .'/ 0'< '
+'& '7+ '?& & *' & ' '+,' ' ' & ' '+,' ') *? .'& '
'+,'

%E1',< - '-'+,'. %+ '9', 7+ *'+,'&'1 * '+,' 7 ,'
* .'7+ .' .' <<*+7

%E1' (',< - '-'+,'.,,+ + ' ', 7+ *'+,' '*-('
E+6 +,' +?+*'* .'7+ .'_ <<*+7

I1' -'* .',+*', /. - 0'&'<* ,-*< + '. * 0' & ' 6 '
+,'& ' '*+ /' /' & ' * + ' +,' &'3+7 * 6 ' ' +'
&+* 0' .' .8 . - + '* .'7+ .'Q' <<*+7

$'5 %9J9) %92I1'+,'&' * - + '+,'&' ?'C *('+,' &
*'<,

'5T%1 % %92I1'6 .' ' &'-+ * *' $

'1%9%9 I1'/'&'= *.'+,'= 66 0 ',+*', *'0* .'

9I'&', *'+,' , '&'. ' *' +'/', .'<'/'&'*+7 ,

'J 951'0* .'+'&'= *.'+,' E +&

'1%9%92I1',+*'&'R,-+ '+,'C 6 *',+*'* < * 0'$
/*.0' '&', ? * * '+,'C *(./*0&'* .' .'. .

I1' -R 0 0'&' + * '+,' , , 6 '+,' '* '
* .'7+ .' .' <<*+7 ' ' ' #

%E195'$ 8, ' 3+66,,+ *' 0 7' &' *+ ' ,, ' .'
+ -& .' D' &' - ' .' ?' +'/ ,+*' < -&'<,' ' &
<*, ' * 6 '

%E1'* ,- + '+,'&'E 66*6 '% +*' .'+&*' <
&')+0 '<,' *+ , + '/' *':U'E 6 + ' ' 6' '%E1' -' 7+' *'* .' %&', '5+ '- .' %&' -'+,'
+,'&'+ '+,'1. / 0&' '&'-+ * * .8+ * 6 ' '&'&*.'+,' < 6&*' G * .' * *', .

s s s

s s

% * $ * &% % /
/ *-*< 8 8 +,> *(/+0_ * 6 +66 , 6 * ,+*
> 6,, & * c Z4 << K
9 < ,3 , , -& G . * P + 0 *Z
, +& 3
j & +, (&
9 +, % /+. 3 +*0 3
" 6 -"+#- G
j ? ? G . *
1* "**4 * P)& - 0 + *Z 2
j j j 7 .) : / *. -+ , * +, 4
9 j 9 / -+66 , + * ,+* & & * +, j D ;" ; PV
j 9 . -+ -+57 *+, j <<
9 . / D +, I ? 2 . 3 4
j 9 & * +* , ? * Q- +, .c & * +, j <<
j 0 * .+?)+ - +, j
j j * - < . * +, C 0)+ .0 +, j j
$ <<
$ ## * - < . * +, * & T+D .0 +, j
j # j *+7+, +, j <<
/ 6 & +, P Z ; P ; " N
<< T
j j $ j 9 G . *
$ +& $
)&*, $
@ !%T2/-31
3 +*0
6
"
$
@ -27
# +& P + + G . *Z
: 6
/ * -& +*. j <<
-& ,+ P -& ,+ Z +, E+ . + 6
+, ., *,, B
- < 02 f
4 B $
. *+, ' *6 6+ * GX
j +, C & 5+/ * *
j +, = *0 4
j +& P0 +0* <& *Z j <<
. 6 +& P?* * 1. / *0&Z j 6 - * + & =+*.
+,)+ - .
. 6 + *. +, j P . * .+ 60 *Z R > *
.7+- & =+*. 9 83>
j << VK"
R+=

0 ? +, =+F& ? * .* ? P& * / * ,, .-+6
6 , + * ,+, : 0 + & J Z4
& j <<
#9 9j U 6 P + 0 *Z 4 0
N j +, & ?-& .* ?
j j j * -(4
" 6 H %#- H % %2 .
. H % %2 . << 9
%S%7- 592+5 K**
%S%71-25 !2%+46"6 ;> ')=@
G "17 ; '=a
* -(P-+66 , * - *(+, 1. / *0&Z
j 9(j %&+6
%S . 27-&" 6 2% . $- "17 '??
J 1" . 2, V9+%3-+ 3" 31- %#7-3F ?; *
j : D 6 P .7+- Z
a* > F(& D : 6 9 R 16
j j . 6 P-+66 , + * ,+* . / *0&Z
$9T2
9 5+/ *
* / +, #
-+66 , + * ,+* & * +,+j << :
,* &+ . * +, & & * +, j
6 0 * +, j j << : :
B *. +,) & * . 6
j +& P . * .+ 0 *Z
*. *. +, j R ' + 0 4
# *. * *. , j 4 R E 6D / 4
5= 1 +3 6<3 6 6
9>% 66 j <<
* & +* + & *. +, j
(+& P6 * *Z <<
+ R +
1 4 ! 8 / * 9 = 8
4 @B < D ;8 = #?# B 8 4 7US
G . * +, > -(&+ , +& K : "T ;
: ?! ?AB 8847 8& V
9; 9j +, I ? +) .
j B 5+/ * P .7+- Z
91 %&+6
0 * 6 P C & .Z8
4 + * *-& / .
9 +/
+ 9* *. +, j R ? *
*. - +, & 9 (3 +*0
D+? / D +, j "
< R << ;
!32+ V !30+-F !2%+5 +, j 3 R 8) 66 0 4

> ʻP> ^ʼ> Zʻ : 8 P-+ ? , . *ʻ,+*ʻ9 7 */ *7 Zʻ
ʻ ʻ ʻ ʻ ʻ ʻ6P <<ʻV;"ʻ
#ʻ$ʻ : 6ʻP/ , ʻ+,ʻ> 7 Zʻ)Cʻ
> + ʻ+,ʻ> ,+ *ʻ ' 78.ʻ ʻ $ ʻ $
sʻ +,ʻ)* 0,++. ʻ ʻ5+/ *ʻP + 0 Zʻ
ʻ +,ʻ% *7 ʻ%&+6 .ʻ
3 +*0 ʻP-+66 , + *ʻ,+*ʻC * Zʻ ʻ ʻ ʻ ʻ
j <<ʻ
> ,+ ʻ+,ʻC *ʻ5+/ *ʻ 4
> . ʻ *.ʻ+, jʻP + 0 *Zʻ 4ʻ R ʻ5+/ * +
> . +*6 ʻ *.ʻ jʻ
> & *ʻP> & 7 ʻ> & 7 Zʻ +*. j 4 +& ʻ ʻ ʻ ʻ ʻDK"
4ʻ ʻ
$ ʻ ʻ ʻ . <<ʻ ʻ ʻ ʻ ʻ
gʻ j ʻ jʻ 6 ʻ
#ʻ 9ʻ 7* ʻ .ʻ.+? 0 *ʻ+ jʻ *0 * ʻ N <<ʻ
> Dʻ+,ʻ: & .ʻ +& ʻ
ʻj ʻ +& ʻP-& 6/ * ʻ +ʻ& ʻ)+ * N& ʻ5+& Zʻ 9ʻ
7 ʻ a.6ʻ <<ʻ9 ʻ
> . ʻP> . ʻ> . Zʻ +*.ʻ ʻ ʻ ʻ R ʻ \ ʻ
f .
ʻ9 +,ʻ= ?/ ʻ5+/ *ʻ
jʻ jʻ<,ʻ &+ , N : 6ʻ ʻ
> & ʻ+,ʻ%+, ʻ 4ʻ +& ʻ ʻ
j4 9# jʻ ʻP + 0 *Zʻ6
> *, ʻ *.ʻ+, jʻ
ʻ j ʻ P + 0 *Zʻ
$> 6/ - ʻ *.ʻ jʻ ʻ ʻ R ʻ & .+ , aC"
> ʻ+,ʻ1 * 7 . ʻ)& * ʻ ʻ "
4+,ʻ3* / ʻ *ʻ : 6ʻ ʻ ʻ ʻ ʻ $
j 9 ʻ j j - < ʻ : 6ʻP 660 *Zʻ6 ʻ ʻ
ʻ i <<ʻ69ʻ ʻ 2ʻ
ʻ + <&ʻ <<ʻ
> , + ʻP> +, + 6Zʻ *. R E </ 6
> ʻ + , *ʻ
>2%-(ʻ-+ + ʻ ^j << ʻ ʻ> *- ^
> *,+*. ʻ *.ʻ+d ʻ
> ** 5ʻ 3 +*0 NP<<* + *ʻ+,ʻC ?++.Zʻ ʻ
> * 6ʻ+,ʻI ʻ . *ʻ 9
> *? -(ʻ)+66 , + *ʻ+,ʻ << ʻ /*j ʻ <<ʻ Qʻ
> , ʻ- < ʻ7 ʻ <<ʻ
> 00 *ʻ+,ʻ: + 6 ʻʻ: 6ʻ ʻ 4
> 5 ʻ . ʻ <<ʻ
> 0ʻ+,ʻ ʻ ʻʻ
j j ʻ +& ʻ 6 j <<ʻ
ʻ +, : 5 ,+*. ʻ *ʻ%* 5 68 ʻ ʻ
> *(/+0 ʻ *.ʻ+, jʻ j <<ʻ ʻ R ʻ / * *+6 / ʻ
> &+< + ʻ *. +, jʻP . *ʻ .ʻ + 0 *Zʻ ʻ ʻ ʻ ʻ
ʻ *& ʻ>*+? ʻ
> , ʻ+,ʻ= , .* 6ʻP + 0 *Zʻ ʻ ʻ ʻ ʻ
> -(ʻ 5+/ *ʻ ʻ ʻ ʻ ;
> -(/ **+ ʻ *.ʻ+, jʻ 6 9 j -+66 , + *ʻ,+*ʻ / & * ʻ
ʻ 9 : : ʻ ʻ 3 j <<ʻ 6ʻ :9^
R ʻ **
> -(&5 ʻ *.ʻ+, jʻ ʻ >Mʻ ,
> 2-(? 5ʻ9 -(ʻ ʻ R ʻ> -(? ʻ
> -(?& ʻ *.ʻ+, jʻ
> -(? 5ʻ9 -ʻ ʻ R ʻ> -(?
ʻ%&+6 ʻP8 , +*ʻ ʻ3 0 77Zʻ 6 j <<ʻ ʻ
ʻ
> -(/ 6 ʻ : D 6 ʻ 4
> (?++.ʻP> -(?++.Zʻ *.ʻ+, jʻP + 0 *Zʻ ʻ R ʻ= ?* ʻ
$ ʻ ʻ ʻ 9 .* ?ʻ <
ʻ 6 ʻ ʻ 4
ʻ5+/ *ʻ ʻ <<ʻ
> *ʻ *.ʻ+, jʻ+,ʻ & ʻ9 (ʻ : 5 6ʻP-+66 , + *ʻ,+*ʻ *ʻ
$# & *Zʻ U4 G4 2ʻ ʻ S 4P SS4 S 4 4 4 ʻ ʻ ʻ
4 4 U 4;9 KKʻ 4ʻS 4 4ʻ(.4 U4 V4 *4
@@@@@@@@@@E@@@@@@ @@@@@@@@@@@@@@@@ H% %2 .ʻX>?C=A ;`4 V

#> *ʻ +,ʻ . 6 + ʻ ' 7 .ʻ
ʻ j j j 9jʻ +& ʻP + 0 *Zʻ
j +,ʻ *./ *ʻ 6 ʻ
ʻ j9ʻ+,ʻ> 6 ʻ ʻ +& ʻ ʻ ʻ
! ʻ+,ʻ> & -(ʻ *ʻ%&+6 ʻ
j ʻ+,ʻ> *, + ʻE 0&ʻ
j j ʻ2,ʻ) */ ** ʻ *ʻ . 6ʻ ʻ j <<ʻ G
+,ʻ' (ʻ +& ʻ ʻ ʻ 4
j jʻ+,ʻ3 - 8 ʻ <<ʻ 4ʻ
ʻ+,ʻ9 & * ʻ ʻ
j ʻ+,ʻ= & . ʻ <<ʻK
j ʻ+,ʻ .* -& ʻ ʻ
j ʻ *ʻ . 6ʻ j <<ʻE2ʻ
$ ʻ >* - ʻP-6 6 , + *ʻ,+*ʻ N Z4 ʻ ʻ ʻ mʻ 3 ʻ
#j ʻ- < ʻ4
j ʻ57 ʻ-+5+ ʻ <<ʻ
j $ ʻ ' 7 .ʻ
j ʻ 4ʻ5+/ * ʻP, - +*ʻ +ʻ> &ʻ+,ʻ) */ ** Zʻ
> * + 6ʻ .ʻ _ʻ ʻ Rʻ> *
> *-ʻ +*. jʻ G . *ʻ ʻ ʻ ʻ ʻ ʻ ʻKV" ʻ ʻ 4ʻ
ʻ 9 ʻ ʻ ʻ ʻ ʻ ʻ j <<ʻ
ʻ ʻ ʻ ʻ j ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ

> &ʻ *.ʻ+, j$4 4ʻ R ʻ . * &
>+0 ʻ *.ʻ., jʻ ʻ ʻ Rʻ: 6
>+0 ʻ+,ʻ>+0 &+ ʻ%&+6 ʻ
6 ʻP6 *-& ʻ ʻ 3 0+?Z
j j ʻj j ʻP . *ʻ .ʻ + 0 *Zʻ ʻ
j j ʻ5+/ *ʻ
j j ʻ: 5 6ʻP6 *-& Zʻ
>+ -(ʻ : 5 6ʻP6 *-& ʻ1. / *0&Zʻ
>+0ʻ lʻ 6 ʻ
4 : 6ʻP ʻ -& <-+-&ʻ ʻ3 6< Zʻ
j j j ʻ 8 ʻ
>+0 ʻ *.ʻ>, jʻ ʻcʻR ʻ ' 6/ *ʻ4
>+ & *.ʻ9(*.ʻ+dj ʻ 3+6? &ʻ
>+ ʻ ʻ
>++ʻ+,ʻ + 0 6* + ʻ 6 ʻ
>++ 8 ./ *0&ʻ *.ʻ+, jʻ
>+**+?, + ʻ-+ - +*ʻ+,ʻ& ʻ- , +6 ʻ+, jʻ <<ʻ ʻ
>+* &? -(ʻ G . *ʻP ʻ= ?& .Zʻ <<ʻ
>+,? 5ʻP>+ ,? ʻ>+ ,? >+ ,? 5Zʻ+,ʻ -& -, ʻ ' 7 .ʻ 4
ʻ
ʻ#+,ʻ> / * + ʻ : *ʻ
ʃ ʻ3j ʻ+,ʻ>* , & .ʻ ' 7 .ʻ
j ʻ +,ʻ)* 0 + 6 ʻ ʻ +& ʻ
###ʻ +,ʻ ' 7 ʻ ' 7 .ʻ
+,ʻ' , + E * ʻP<+* + *Zʻ9
##ʻ# .* ?ʻPP(<< *Zʻ
jʻ ʻ / 5 ʻ ʻ
9 ʻ +& P-+66 , a6 *ʻ,+*ʻ F & *Zʻ m
ʻ ʻ # ʻ ʻ
j ʻ
jʻ ʻ +& ʻP-+66 , + *ʻ,+*ʻC *(- . Zʻ g ʻ N ʻ g
8ʻ :;8ʻ :8ʻ <8ʻ ;8ʻ 8= 099ʻ>
>+ *? 5ʻ+,ʻ3 -+* ʻ G . *ʻ
>+?/ *. ʻ *.ʻ+, jʻ ʻ R > / *. ʻ
>+? ʻ+,ʻ' * 6 ʻ ʻ
4 ʻ j ʻ ʻP + 0 *Zʻ
>+?6 ʻ +& ʻ ʻ
>+ .ʻ +*.ʻ ʻ
j j jʻ+,ʻ -+ ʻ%&+6 ʻ
ʻʻ+,ʻ%*+-&* 0 ʻ ʻ
+& ʻ ʻ ʻ 4
>+ ʻ+,ʻC / 6 ʻ ' 7 .^ʻP-+66 , + *ʻ,+*ʻ> Zʻ ʻ ʻ ʻV`ʻ
ʻ ʻ 9 ʻ ʻ ʻ
j ʻ 6 ʻP U5 ? -(ʻ<* - +*Zʻ
>+ ʻ *.ʻ+, jʻ j <<ʻ ʻ Rʻ 20D7
> -+ʻP>* --+Zʻ *.ʻ+, jʻ ʻ j <<ʻ ʻ Rʻ ' ,,

&5%8‘ $)‘ ?

D+ & 3 %‘P>* . / ‘>* . / ‘>*Q. / Z‘ +3‘ EF‘
+& ‘ 6 ‘ ‘ 9 ‘ ‘ ‘ ‘ ‘
‘ ‘ ‘3 <<‘ Q
4‘ 4‘ ‘ ‘ ‘ 9 ‘ ‘ ‘
>* . &+ 6‘P>* . &+ 6 Z‘ *.‘+, j‘ ‘R‘ *& .‘
>* 0‘F * , *‘
>* (.‘P>* (, . ‘>* -(. Z‘ *.‘+, 4‘ 6 ‘?@‘ABG‘
D+ 9 +&‘ +3‘+J ‘
>* .‘ G . *‘P, *‘+,‘> / * . Z‘ ‘
>* .6 .+? ‘ *.‘+, j‘ 9‘ 4
D+ (%‘D (‘ 9,-‘HAA
>* -& <*+7+,‘ .‘/ ‘+, j‘
>* 66 ‘ *.‘+, j‘ ‘ - *
>*+ . ‘ *.‘+, j‘
>*+. ‘+,‘& ‘9 (‘ ‘P-+66 , + *‘,+*‘10 & * Z‘B ‘ ‘
‘ 9 ‘ ‘ ‘ ‘ ‘ ‘69 ‘ ‘ ‘
j << ‘ 6‘ ‘ # ‘4
j ‘ 6 _‘ <<‘ 8‘
‘‘+,‘ (‘3 +*0 ‘; ‘ ‘
#9‘‘‘+,‘)+ , .‘P)+ , .‘) , .Z‘ : & ‘ ‘
j j +,‘' - * G . *‘ ‘ ‘4
j j ‘+,‘= &.‘P= & ‘= & 6Z‘ ‘ ‘ @U 4‘
j j‘ 8,R‘ <<‘
9 ‘ 9' 7 .‘ : j <<‘ ‘
9 ‘ +,‘ + ‘ <<‘ ‘ #
+, <&
j j ‘+,‘ + 0,‘P Z‘3 +*0 ‘KP-+66 , + *‘,+*‘I * 44‘
, * Z‘ j <<4‘ 4
j ‘+,‘: . & > ‘ ‘ ‘ <<‘ ;
‘
99999 7#` S ‘ ‘
‘9 ‘ J* - ‘ 6,‘ 4
‘ ‘ 7 &‘ +, &‘ <<‘ ‘9 ‘ ^
j ‘ ‘: 6‘P-+66 , + *‘,+*‘7 [‘ ‘ 4j
<<‘ ‘# ‘
>*+2%+& ^‘ *.‘+, j‘ 4‘ R‘>* -
>*+? ‘P>*+ Z‘+,‘> &+ ‘1+/ * ‘-!‘
$j 4+,‘> -(/ 6 ‘5+/ * ‘6 ; ‘ ‘
‘ j‘+,‘>* .‘ .* ?‘
j‘+,‘)+ +& ‘ *‘ *-(‘; ‘
j ‘+,‘)+*, + &‘P) * &Z‘5+/ * ‘ ‘3 ‘ ‘ 4‘ $
j +,‘'+<& ‘ . 7‘ <<4‘
j j +,‘' - 6 ‘ .* ?‘
+ C F8 + ‘ G . *‘ ‘ ‘
j j ‘+,‘= -(+? ‘4
+,‘ 0 *&+ ‘ 4‘ ‘
j j ‘+,‘I ?& ‘5+/ * ‘6 ‘
‘+,‘ -+ + ‘ +& 8‘6 ‘ ‘ ‘ ‘
+,‘ / 00 ‘ : , 6‘
‘+,‘%&+* . -(‘ 4‘ G . *‘ ‘
j j G . *‘ j <<‘
‘ K, :;‘ ‘P. ‘+,‘0 .‘+,‘9*7 Z‘ <<‘
j j ‘ .* ?‘P(< *‘+,‘& ‘* 0 *‘+,‘, , Z‘ C
j 4‘) & * Ù <<‘ ‘ 4
1.? *.‘P6 *-& Z‘ <<‘
‘E ?‘P-+66 , + *‘,+*‘9 7 * * Z‘ ‘ ‘ ‘ ‘ ‘ %‘
‘ ‘ Nj <<‘ ‘ ‘ -m‘ 2‘
‘ j # ‘ ‘P <+ & - * Z‘ <<‘E ‘ $
/ ‘ 6 ‘
j j ‘ 6 ‘P ‘I ?6 Z‘ ,,‘
‘#K‘j ‘P + *‘< / -(Z‘ N
j <<‘
‘- < ‘ +& ‘P+,‘9*7 Z‘ ‘ ‘33‘ ‘ j <<‘ ‘
j‘ +& ‘P& * +*‘ ‘I ? + Z‘ :
‘P ‘ & -(Z‘ 4
P (<< *‘ ‘= &Z‘
‘%&+6 ‘
‘ : 6‘
‘ : 6‘P6 *-& Z‘ <<‘ 4

>* -‘+,‘>++*. ‘5+/ * ‘
+,‘>*++6& ‘ *‘ G . *‘ ‘ ‘ ‘6 :‘ \‘
j << ‘ 4‘
‘ G . *‘ ‘
j +,‘> ? ‘ *-(‘ ‘ ‘$
+,‘) -< ‘ ' 7 .‘P-+66 , + *‘,+*‘) -(6 >4
&* Z‘ ‘ ‘ ‘4 ‘
j j ‘ j‘ 9 *‘E * ‘6 ‘
j‘ j‘ # ‘ ‘9‘E * ‘
+,3 * ‘ ‘ G . *‘
+,‘C ‘ ‘ ‘
‘j +,‘C +-/‘ 6 ‘
j ‘+,‘C *+, ‘ +& ‘P + 0 *Z‘ !
* ‘ , j‘ *‘ : 6‘ ‘
j ‘+,‘ + ./ *0&‘5+/ * ‘ ‘
4^* ‘ *‘ G . *‘P-+66 , + *‘,+*‘ F & KZ 9
j << ‘ 9‘ $
j ‘ .* ?‘P +*‘+,‘ < Z‘ ‘
j ‘ * & * ‘ ,‘ ‘ $‘$
44j4‘) < ‘ ‘
j‘' 7 .‘P ‘1. / *0&Z‘
j ‘ ‘3 +*0 ‘P/ . - ‘6+ (Z‘
‘P6 *-& Z‘ <<‘
#K ‘ +& ‘P6 , *Z‘ <<‘ ‘ ‘B
j j ‘ *‘P 0 *Z‘
j ‘5+/ * ‘
#‘ ‘" *‘ : 6‘ <<‘ 6
j ‘6 8+*‘ : 6‘ <<‘ ‘
>* .‘/+ 6 8‘+, j‘
‘6 0 * ‘+, j‘ <<‘
>* + ‘ *.‘+, j ‘ R‘1 ,
>* - ‘- < ‘c1.? *.‘ ‘ ‘ ‘VV" j <<‘ ‘
3 <7 ‘
‘ j99‘ +& ‘P6 *- .‘- *‘+,‘' / Z‘ ‘
:j j‘ 44 4 <<‘ ‘
j ‘ . ?‘ 4
j j‘ *-(‘
j ‘ : 6‘
a*‘* ‘ ‘ <<‘
>* .(*(‘ *.‘+, j‘ ‘
>* 6 *‘+,‘1.* 6 ‘ ‘ ‘ ‘B
>* 6 ‘ *.‘+, j‘P + 0 *Z‘ ‘ M‘ - *
>* ,+ ‘ +& ‘ ‘ ;‘ 4‘ 4
7)## *8&3‘ 8/*‘ j‘P' (‘+,‘ + 6+ &Z‘ 6 ‘ j‘
<<‘
‘ +3‘ ‘ J* - ‘ ^
:;‘ ‘ j j$ j ‘ : *‘ ‘ B 4
#K :‘ 8#)*..‘2Jj‘P-+ ,‘+,‘' (&‘ .‘ -+‘+,
$ ‘ 4‘ :& /&, *‘1 (. ‘ -Z‘ ‘
##N ‘‘ ‘ ‘ # j j‘ ‘
> -- 0&‘: *‘+*.‘ -+ ‘+, j‘ ^‘
j‘ ‘ / ‘+‘ &‘' -& ‘+, j‘ +‘ ; ‘ ,F
j‘-& 6/ * ‘+‘ &‘' -& ‘+, j‘ ‘ ‘
D (%, +3‘ 9<‘ j << ‘ j ‘c'*4 4
> -& ‘ +& ‘P . +- Z8
j j j ‘-++ D‘%&+6 ‘ j 6 8+*‘0 * L‘ ‘ N8
‘ ‘3 j <<‘ 3‘ ‘
> -& +,‘ 6<* *‘ +& 8‘ ‘
!!^!!! Z‘+,‘> , 0‘: *‘
!! !!‘ <,‘> -&* 6‘3 +*0 ‘
9!!!!!!!+,‘>+F & ‘J&+6 ‘
‘ ‘ +,‘) */ &‘ +&
j +,‘)*, 0 7 6‘ +& ‘ ‘ 4
+,‘'* 6& . ‘%32
j +,‘E *< * + ‘' 6- ‘
j +,= +& ‘ ‘
4 :*9‘ *' 7 - ‘ KK‘ ‘
6 ‘P?* 0& Z‘ ‘
> -&F & ‘ *.‘+, j‘

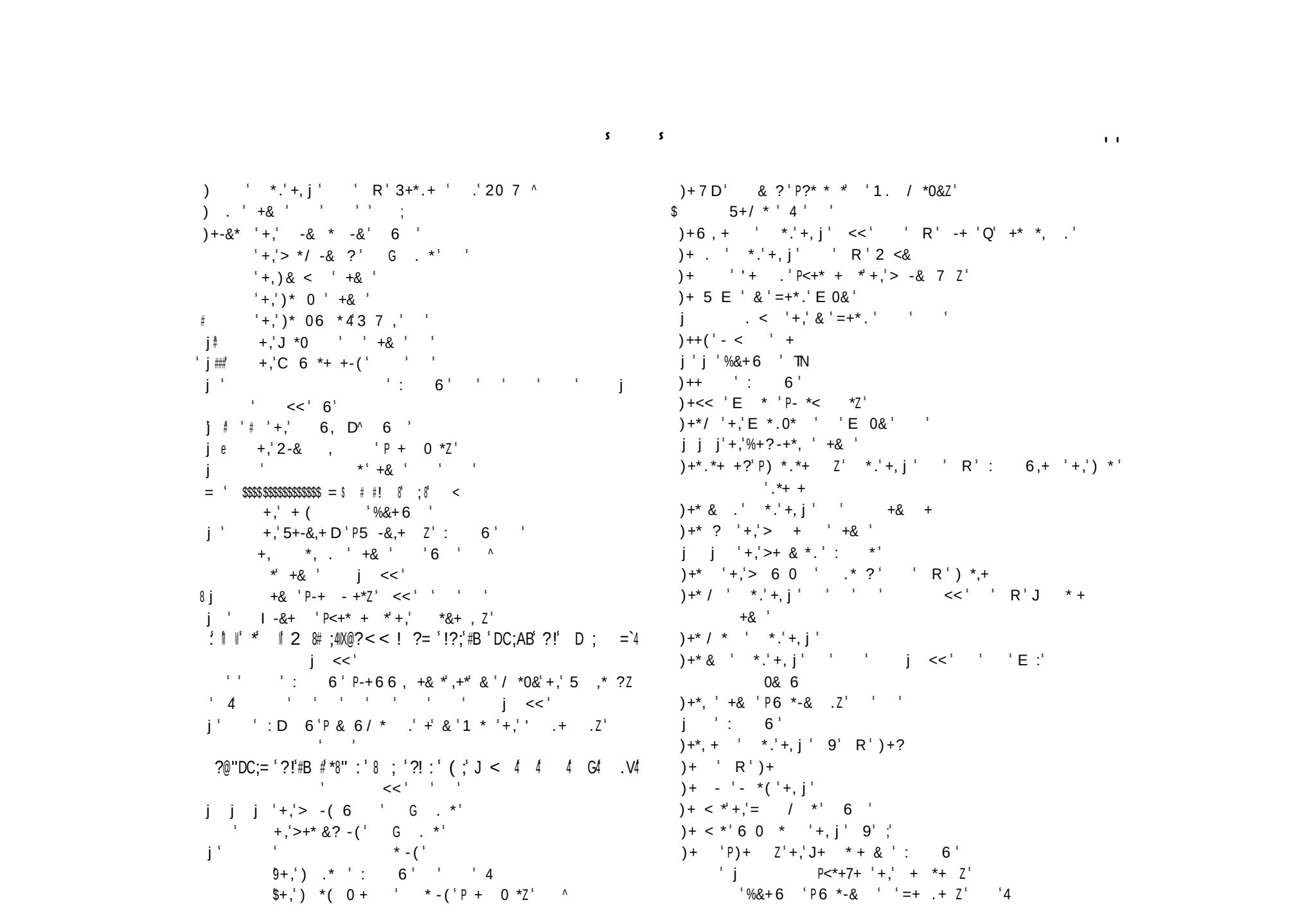
> -(1 $
> .0 +,%+, 0 ' '
> P>+ Z+, *.+-&P *.+-&Z P + 0 *Z -P ,
I -+D
+,> 0 , *-& / .
+,C /* . 6 +* E 0& KC P; TCQ"_
-+66 , + *,+* * , *. j << j
5+/)%P & -(Z
> 6 + P> *+Z *.+, j R >* -
> *. 1.? *. P6 *-& Z << j
P (<< *Z j << j
P + 0 *Z << j
> *0& NL# (%[(j > (- j
j << j .
j j 6 , *+, j 5+/ * Z j - *(+,
* 0 * j
> * +& (PP 4
> * +, 0 7 6 !
_ +,> ,+ * - < : 6 j <<
$ m
"6 2+7,@ ! @
j 9 j j # ! : 6
s +,) 6<, .
+,) *+< 6 +* ^j Ec
j +,) *(, %&+6
+,)* 0 j
j +,)* 06 * G . * TC:
j +, ' . +&
j 9 +,1 -(P1 * -(Z 5+/ * c
9 +,17 0, + * %&+6 P.+- +*+, 6 . - Z
$ 4
+, 3 / *7 5+/ * !
j 99 +,C : 6
<a+,C&+G G . * P-+66 , + ,+* C6- *. & * Z
8
j +,= P= Z *%&+6 P-+66 , + ,+* C - *
. & * Z
69
3 j << # 8
j j +, + /+. .+ G . *
+,= 2*6 + 5+/ * "T;D
j .* ? ,6 , * / *. Z T <<
9 :
K j P .7+- Z
6 8+* <<
5+/ * P ?* * + & 0 Z
%P- * - * 0, * Z
> **+?, . *. , j a R % + *Q : (0 & ? 8
> +*. << 8
<< 6
j & ** ,,+, j << 6

) . . *. +, j P + 60 * -+66 , + ,+* I * & , Z
j +, ,? DC
: 6
) * + *. +, j R) &- * Q3 * +
) 6 -*+, +,E +< : * 3 4
) +,%+* 4 4
) * *)& * P6 8+* 0 * Z << E
) 66 * *. +, j R = ?,+ -
(%I +3 9, , A@B JHA
) & P) & Z C *,, . < +, j
) . D+,3 &, . : 6
) . * *. +, j j << R) 6</
j j j P + 0 *Z j <<
j +, 0 0 P 0 0 .Z G . * c
+,= 0 * = * - 3

) . * +, * + , * 6 3 7
_j j 5+/ * j << $ 4
) . *& . +, : . .0 P + 0 *Z
) . *?++. / G . * P ' (&Z
: 6 P?* *Z 2 : ;Q j & *,,
. < +,1. / *0& j <<
) .?. +,& 9 (+& j -+66 , + *,a\5 *
,* ? & * N $
8 j j P + 0 *Z
33 %& +3 < 8E VT 92 9 P
j << 9
K 9 +&<
) D &. * +,)* 0,+* & +& j << $
j j ' 7 . P?* * 1. / *0&Z <<
1.? *. P6 *-& =+&.+ Z j <<
L -& 3 j << <
) +-& . *. +, j << 9 R -I D
) 6 *+ +,3 . & * +& <<4 9 !R) 6</ =
$+,=+-& * 1? << 9 9
4 P + 0 *Z << 9
) * R C 6
) 6</ +*. I 4 9 j <<
+, / 6-& P / ** -& / *6 F & Z *)+
P +*+,&) +D .0 +, - Z
j -+66 , + *,+* * & & * j <<
j j ^j 6 P + 0 *Z Q
+, *.+*+ -(G . *
+, *. * -& +& ^
+, *& R 0 ' + .
+, * & 6 , 97 * 9
4+, -& /* -(* ' - P-+66 , + *,+* *
0 & * Z g 9 TQ :P ; CC DQ =
3 6 j << C TQ :P ; K CC DQ =
+, -& & ' -
+,> 0 * &+* P> 0 *, +Z G . *
+,> ' + .
+,> / P> / Z ' + .
+,> */ -(4
*-& / . P + 0 *Z 6
$ j ' + . $
$+,> * -& P> *- Z G . *
+,> * // * P> * / * Z)+
j ' - # 8
+,> &,? /+.)+ Z :D
+,>* 0 5+/ *
+,> * / (0+
+,) 6 * G . * P + 0 *, *Z j <<
9 # * E 0& P-+66 , + *,+* I * & * Z $
6 <= 6 j <<
$+,) *F &)+
+,) ** -(+& $P-+66 , + *,+* *0 / * Z
j *+& j <<
+,) *,0+?
+,) , +-(* 3 +*0 P=+*. -) *(Z E2
3 69
@ Ph bd V0"87#-+F >B<

* +&,ʻ $ /& ((

2+5-7ʻ!2%+5ʻ"6mʻ '?''ʻ 8++20
2+5+"772ʻ!2%+5ʻ"6mʻ <Bʻ ʻ /+5+"7"9
) *.*+, ʻ +*.ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ j <<
ʻ ʻ j ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ
j j ʻ ?c JE * ʻ ʻ ʻ ʻ ʻ ʻ ʻ Tʻ ʻ j ʻ %
ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ
ʻ ʻ ʻ ʻ ʻ ʻ ʻ
j j ʻ . ʻ6
) *0 ʻ ʻ'+ .ʻ
) * + ʻ *.ʻ+, jʻ j <<ʻ ʻ R ʻ) &- *
) * , ʻ G . *ʻ ʻ 4
) *+< ʻ *.ʻ+, jʻ 3ʻ R ʻ> *
) *6 -& Dʻ +*. jʻ +& ʻ ʻ ʻ ʻ ʻ6ʻ ʻ ʻ
ʻ ʻ ʻ ʻ ʻ ʻ ʻ ʻ
3 34j <<ʻ ʻ ʻ ʻ ʻ 6ʻ ʻ
6 *+, jʻ 6 ʻ
9ʻ +,ʻ> / / ʻP> /* Z ʻ <<ʻ
jʻʻ ʻʻ *ʻ 6 ʻ ʻ
@+,ʻ>+ 0 + ʻP>+ + Zʻ *+& ʻ6: ʻ9
9 ʻ +,ʻ . ʻP Zʻ *'ʻ P-+66, + *,+*
= *(/ *Zʻ ʻ ʻ ʻ ʻ ʻ 89 :ʻ
ʻ 9 +,ʻ + , ?ʻ 6 ʻ
jʻ' ʻP + ʻ +ʻ +*.ʻ) *6 -& LZʻ
J9 j j +& ʻP-& 8 / * ʻ +ʻ & ʻ1 *ʻ +,ʻ : 0 + Zʻ ʻ
ʻ 39ʻ
ʻ ʻ . ʻ * ʻP* -ʻ+,ʻ *ʻ *-& / .ʻ ? *Zʻ ʻ#
) * . , ʻ +& ʻP, ? *ʻ ʻ -(+ Zʻ
3 * 0 ʻP) 6X Z+,> & -& ʻ ʻ
j +,'> 6++ ʻ 6 ʻ ʻ ʻ ʻ 8ʻ 4
ʻ +,ʻ)++(+ ʻ +& ʻ
ʻ # # J+,ʻ)* 028 8ʻ 6 ʻ
"*,'+ * ʻ ʻ *-('
P ʻ :.ʻ =!ʻ/B BB =4 J < 4 ʻ ʻ
+,ʻ/ ## ;;?4 (;ʻ+ 4 ʻ
9 ʻ #ʻ G . *ʻP & *,,ʻ. < ʻ ʻ7 & ["ʻ ʻ
ʻ +& ʻP-+66, + *,+*ʻ &ʻ/ *0&ʻ+,ʻJ+*, *Zʻ ʻ ʻ
ʻ 2 ʻ ʻ j <<ʻ
3 6 , +-&ʻ *.ʻ+, jʻP . *Zʻ ʻ $
) * +-(ʻ *.ʻ+, jʻ ʻ R ʻ I -+,+ ʻ ʻ
ʻB ;ʻ?!9#Bʻ8 ;ʻ?! :ʻ U4 : KKʻGV4 V4 G9
42 +)Rʻ *ʻ :jʻ92 ʻ ʻ ʻ ʻ ʻ
) 6? &ʻ *.ʻ+, jʻ ʻ R4 =+-(& *
) **-('P) **? -(Zʻ/ ʻ+, jʻ4 <<ʻ
j - < ʻ+, jʻ ʻ ʻ ʻ ʻ R ʻ) 6</ ʻ +&
) ** 0 + ʻ *.ʻ+, jʻ
< *+-& *ʻ+, jʻ <<ʻ
) *,+ ʻ+,ʻ> 1 0 ʻ +& ʻ ʻ ʻ R ʻ)+* ʻ $
$) *, ʻ <ʻ : 6ʻP6 *Zʻ
) (ʻ' 7 .ʻ <<ʻ
) ,ʻ+,ʻ)+-(< ʻ *ʻ *('
ʻ /('6 ʻ ʻ ʻ : :
) , / * ʻ *. ʻ+, jʻP . *ʻ .ʻ + 0 *Zʻ ʻ
.. .ʻ *ʻ ʻ ʻ ʻ ʻ 9 ʻ ʻ : :ʻ699ʻ
ʻ ʻ ʻ ʻ ʻ j <<ʻ ʻ
+& ʻ 9 ʻ3
) , 0* ʻ *.ʻ+, jʻ ʻ R ʻ 7D4
) D&Dʻ *.ʻ+, jʻ ʻ R ʻ=+-(& *ʻQʻ) &/ *
) 5 & 7 ʻ R ʻ1*(ʻ. 6 ʻ *0 *
/ ʻ+ʻ& ʻ .ʻ
) , 6 ('/ ʻ +ʻ ʻ *.ʻ+, jʻ
) , ? *ʻ *.ʻ+, jʻ ʻ ʻ ʻ R ʻ ? *ʻ
) &- *ʻ +*. jʻ j <<ʻ ʻ
ʻ ʻ ʻ 96ʻ ʻ
ʻ6 , *ʻ+, jʻ D ʻ6 ʻ 9ʻ ʻ j <<ʻ ʻ
ʻ+,ʻ) * + ʻE 0&ʻ <<ʻ ʻ ʻ
ʻ+,ʻ'* 6 : ʻ ʻ ʻ ʻ6:
ʻ+,ʻ3 +ʻ ʻ ʻ ʻ ʻ
3 7 *ʻ &ʻ . ʻ <<ʻ
! =?@"48 ;% 9?! :ʻ ʻ 4 <KD 88
)& 6 *ʻP)& 6 *Zʻ+,ʻ> / & ʻ 6 ʻ
j c# ʻ"6> * 0 ʻ ʻ
+,ʻ> -(-* 0ʻ : 6ʻ
%j *e ʻ+,ʻ3 0 *&ʻ +& ʻ
ʻ +,ʻ +F & ** ʻP +?F & 6Zʻ5+ .ʻ ʻ ʻ9 <
+,ʻ -&* ʻ D ʻ ʻ
ʻ)& * ʻP?* *Zʻ4 <<ʻ
5+/ *,ʻP/*+ & *ʻ +ʻ)& 6 * ʻ+,ʻ3 0 * Zʻ
)& 6/ * .ʻ.+- +*ʻ j <<ʻ 9
)& < ʻ .* ?ʻP (<< *Z
#K ʻ j ʻ P + 0 *ʻ (<< *Zʻ
)& <6 ʻ+,ʻ=+ 0- * ʻ5+/ * ʻ
)E 5=1 ʻ ʻC9I3ʻ
9=ʻ jʻ ʻ ʻ6 ʻ 29ʻ ʻ ʻ ʻ g
*@ <<ʻ ʻ ʻ $ ʻ ʻ
) c * *ʻ+,ʻ> 6. 0&ʻ +& ʻ ʻ$
ʻ / ʻ <<ʻ
jʻ)& * ʻP6 *-& Zʻ << ʻ ʻ4
j - < ʻ5+/ * ʻ <<ʻ ʻ ʻ ʻE ʻ
jʻ : 6ʻ <<ʻ ʻ ʻ
)& +ʻ *.ʻ+, jʻ ʻ cʻ ʻ R ʻC *
)& ʻ+,ʻ' * 4 +&,ʻ ʻ j <<ʻ
j jʻj J : *ʻ6 6 j <<ʻ
ʻ 6 ʻP6 *-& Zʻ ʻ
jʻ ʻ 5+/ * ʻP/ ʻ+,ʻ1. / *0&Zʻ j *ʻ5+/ * ʻP<*+
7+,ʻ+,ʻ1. / *0&Zʻ
Nʻ : 6ʻP?* *Zʻ j <<ʻ :
)& 7,ʻ+,ʻ * + ʻ%&+6 ʻ ʻ $
)& &+6ʻ+,ʻE &+< ʻ 6 ʻ
ʻ G . *ʻP & *,,ʻ. < ʻ+,ʻ9 7 * , Zʻ ʻ
)&*, ʻ' 7 .ʻP-+66, + *ʻ,+*ʻ ' , *Zʻ ʻ N 2 8
j ʻ 6 ʻP-& : / * .ʻ+ʻ & ʻ1 * ʻ+,ʻ ** Zʻ
j +& ʻ
)& * + ʻ +& ʻP<+* + *ʻ+,ʻ)+6 +G6 Zʻ ʻ9
-(6 ʻ *.ʻ+, jʻ ʻ ʻ ʻ j <<ʻ ʻ
ʻ R ʻ>* -
j j j jʻ-+66, + *ʻ,+*ʻ & ʻ &*ʻ+, jʻ j <<ʻ ʻ
) *+ .ʻ- < ʻ+, jʻ <<ʻ ʻ 9ʻ
ʻ +*ʻ+, jʻ <<ʻ
) *('P) *(Zʻ+,ʻ &- (ʻ *ʻ +& ʻ 6 ʻ ʻ j -+66, ʻ
+ *ʻ,+*ʻ & ʻ & **ʻ+,ʻ1. / *0&ʻ ʻ ʻ
j J!4 .* ?ʻP. ʻ+,ʻ0 .ʻ+,ʻ .* ? Zʻ
P ʻ= .& D Zʻ9
ʻ ʻ3 +*0 ʻP8 +*ʻ6 *-& Zʻ ʻ
ʻ3 +*0 ʻP/ ʻ+,ʻ1. / *0&Zʻ
j j ʻ ʻ P6 *-& ʻ ʻ1. / *0&Zʻ j <<ʻ
ʻ j ʻ6 8+*ʻ +& ʻ 9ʻ 4ʻB
+& ʻP?* *ʻ ʻ1. / *0&Zʻ <<ʻ
) 7 ʻ *.ʻ+, jʻ ʻ R ʻ5+, ʻ $ $
) & ʻ+,ʻ9 *0+?* ʻ
) 0&+* ʻ *.ʻ+, jʻ6 ʻ R ʻ=+-(& * ^
$) . .ʻ *.ʻ+, jʻ ʻ
ʻ# jʻ+,ʻ) . + ʻ G . *ʻ
jʻ+,ʻJ (ʻ +& ʻ$//ʻ ʻ ʻ ʻ ʻ ʻ ʻ -
j j jʻ+,ʻE *,& ?ʻ : 64 ʻ
@ʻ ʻ ʻ>& '"- K
#ʻ # >& '"N %& ["$//ʻ
j j ʻ ʻ5+/ * ʻP-+66, + *ʻ,+*ʻ ,* & *ʻ? *Zʻ ʻ
ʻ ʻ ʻ ʻ ʻ ʻ 9 9ʻ 8ʻ ʻ ʻ
3 j <<ʻ69ʻ 6c
j ʻ ʻ-+ + ʻ : 6ʻ j <<ʻ ʻ6
-Pʻ ('8ʻ ʻ ʻ ʻ
) 0 + ʻ *.ʻ+, jʻ
) *('& ʻ=+*.ʻ , - ʻ ʻ ʻ
) ,+ ʻ *.ʻ+, jʻ ʻ ʻ R ʻ * 0
) +,/ 6ʻ *.ʻ+, jʻP-+66, + *ʻ,+*ʻ ' 6,* & * Zʻ j$
<<ʻ ʻ R ʻC < *-(
ʻ ʻ ʻ #jʻ j ʻP + 0 *Zʻ
) ʻ+,ʻ' (&ʻ G . *ʻ ʻ



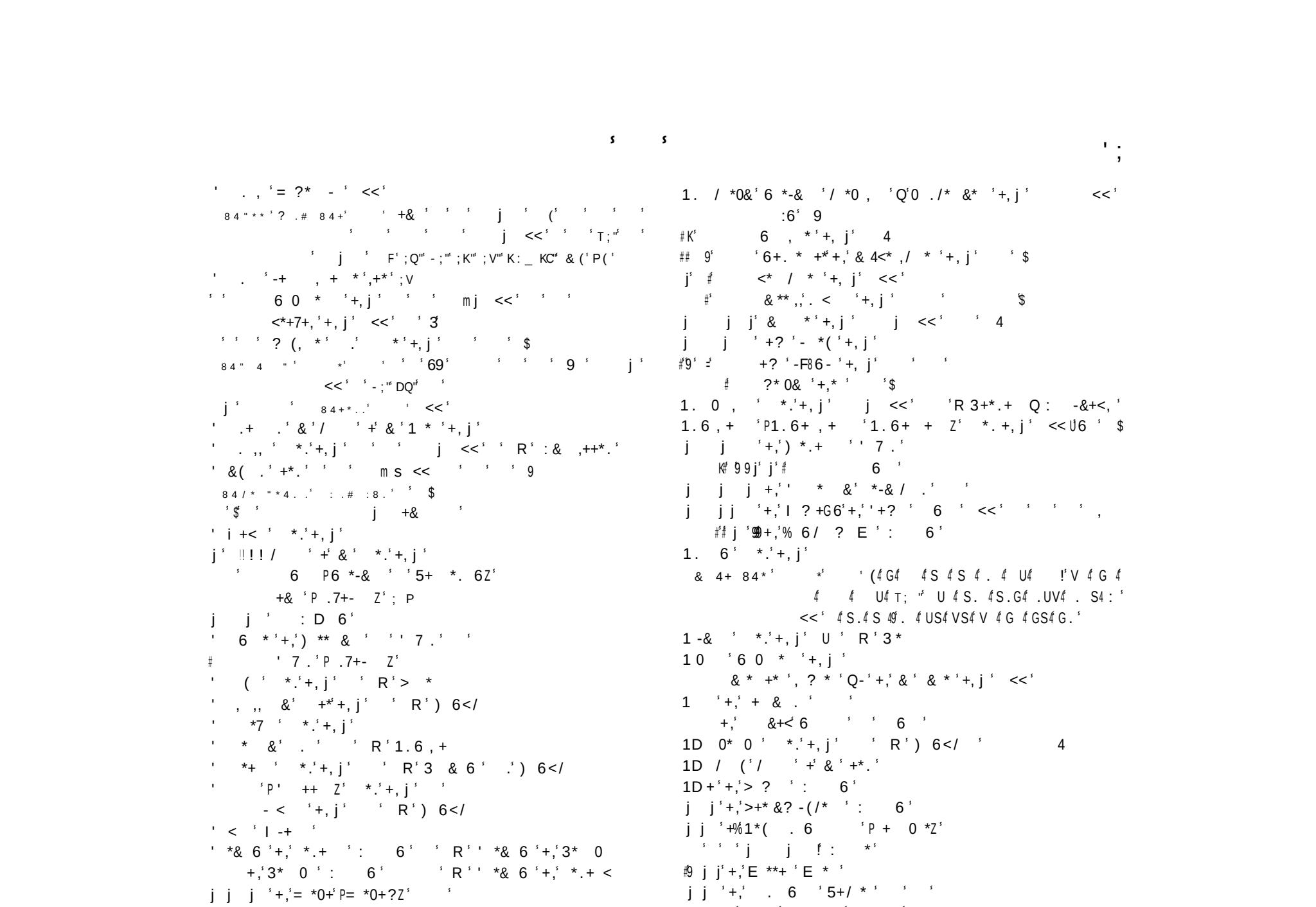
S

C=<AB < 4 2 88 <4 XD;?#B ;'#?'#B '8 ; '?!') 8D ;#! 8 `4

) */ ^ *'
) ** ' 6 'P<*+7+,'+,'1. / *0&Z' j <<'
) ** *',' ?# =4 2 88 <4
) **+ *'+,'E * ?+<./ * ' 3 +*0 '
) &/ *'+,') , &D'3 +*0 '
99% ' +& 'P-+6 <, + *',+*' &'/ *0&'+,'9 7 6 , Z'
m ' ' ^ j <<'
'*:' 'XK;? ?!#?!'J= < ! `4 KK'
j' P + ' +' &'<*+7+,'+,'9 7 6 , Z' <<
) & '+,' + ?++.' +& '

+ 'X+ ~?!' ?8 =AB=? ; 4 J < 4SV4 G4 .V49 V4U G4
KK' 4 S.
' ,+ ' *. ,j' 22' j <<' ' R' 3+*.+ '
/*+)'& #&' ' 6 ' '
+ 8" #B4 8 #D 8> '?! :' G4 .V9
j j e / '+,'&'* 0 '+,j' '
+ 88 '+,' C > #4 CAB4 U.
j +,'3 *F . '3 +*0 '
j +,' ' * '3 +*0 ' '
: : :' ' ' ' 'J < 4P + 0 *Z' '
' 6 &+'+,'&'9 (' *' +& ' j <<'
7 8 F = ;4X>?C=A ;`4
' 6 ' *.'+,j' ' R' * 6*+,
j' < *+-& *'+,j' <<'
' P* 6< '+,')+*, & ' 4E 0&',
' +,' ' * 0 'P' * 0 ' 6 ' ' '
' ' +,'1 +-&' *' 6 ' ' ':::'
' +,'I +* &/ *? -(' 'E 0&' 4
j' +,o *' *' 6 ')R,-+ '+,' *Z' ' R
(# *&
j8 'j'9 %'9' *';+& 'P + 0 *Z' 2' j C,0' .
R+- ' j <<' 9
' j' j N *' +& 'P-+66, + *',+*' * * * *Z'
' 9Z' ' :'69'66'6:' 9G ' 9'
j'+, ' 'E 0&' 9 j .7+- '-+66, + *',+*
I ?0 +? ' ' ' ' ' ' ' ' '
j <<' '
%j 4' 7.'P .7+- Z'
' E 0&'
j'# '# 9 ' 6 ' j <<'
j' *' +& ' ' '
'j +& 'P + '+'&' , *'+,' , *Z' '
' 7 ' *.'+, ' 4' > 0
' ' *.'+,j' 4 '
j j j +,'> ' *'%&+6 ' '
9@'+,'3 ' *' +& 'P-+66, +<+*',+*' ' 6,* , * Z
' ' 9
' (&' *.'+,j' ' :' *-&/ .
' *0 'E * ' ' '$
' R. + '+,'E+? 6'5+/ * ' '
j # j +,' *-&- 0&'5+/ * '
j ' +,'I ? +G6' G . *'
Kj ' - < ' : 6' <<'
' ? -(' *.'+,j' ' R'R -&
' '%&+6 'P F * '6 *-& ' '=+ .+ Z' '# 4,
j '- < ' ' <<'9
' ' R''
' 6< *',' 7 *' ' +& 'P-+66, + *',+*' J , & * Z4 '
' '6 ' ' ' 9 '9 ' '
j *' +& ' ' ' ' ' N' '
<<' ' ' ' ' ' 9' 9:
'K'e ' +& '3
j'P + 0 *', *',' 7 *Z' m
9' 7.^ 9
' 6, * ' ' ' '
R+='9]

' &+ 6 'P' & 6Z'+,': & ' : D 6 ' ' N'
j -+66, + *',+*= *(, * '
j <<' '
' ** '0+7 6+ *'+,j'
j'6 *-& '+ j'
' -& *' *.'+,j' ' R' 88 **
' ' 6 '
' -('+,'>* .' *' : D 6'
j j ^ ' : 6' j 8_ <<" E2
j '+,* 0&+ ' *' .* ?' j <<' '
'+,' * , , .' *' 6 ' ' '
j '' 7.'P?* *' '1. / *0&Z
j ' *' 6 ' j <<' '92 '
'+& '
j j' +& 'P-+66, + *',+*' &' / *0&'+,' *& OZ' ' ''
8' j <<' 9'
j ' *' : D 6' ' j <<' '
j j ' ' : 6'
j ' : D 6' ,
' -(' : D 6' ' ' ' $
' -(,+ '+,'E ** ' ' ' ' '
+,' +* / 0'5+/ * j *' 5+/ * ' ' '
+,'%+ * .' *-& / .'
j j '+,': / ' *-('
'+,': & , .' +& '
@ K# =4[KK'S 4
+& '
' . , + +,' ,++*.8 6 '
' /+0' *.'+,j'
' 0? D'+,') 6/ ,- ** '1+* ' 3
' ? . . '5+/ * ' '
'* + ' . ' ' '
' #K .'+,j' %8 <<' ' : ' R'I ,/
' , 0 + '%&+6 'P + *Z' <<' ' '
+?!! ;; '4' GU
+<& 0 + ' *.'+,j' ' R'>*+?
'+'+,'I ? +< ' *' 6 ' ' ' '
j j'+,'2 */ 6'P2 / * Z' *-(' ' '
j +,'5 & ,++*.' G . *^ '
j j'+,' 6 &+ 6'P 6 D 6Z' 6 ' '
'+ .' ., :' '%6* * & DZ' 6
'+ . + '+,'= .* 6?&6. ' G . *'
' @@' 'P'@'42:32%7' ::';*C
j' j j' ' 7.'
' $ '9j '= * - 'P6 *-& Z'
'+ D '
'+ (' *a'+,j' ' R'> *
''+*6+ &'P'<*6+ Z' *.'+,j' 8 '9
+?;<@"48 ; '?!:' 4 .G7 '+?CA8
'+* +-&'/ '+,j'
+?CA ''' '+?EA 8O
8& .' 8A8*.' 'X' 4 4 4 S.4 S 4 4 4 4 VG4
4 GG4 4 'U4 .V4 . 4 S. 4 .UV4 . 4 : KK'
4 V 4 4
''+ 0 '+*.': 6' 2' ' ;' '
j' ' +,' *. '5+/ * '
j # ' +,'> . ' ': D 6'
j ' j9'+,') 7 * ' *' : 6' ' ' j -+66, + *',+*'
= *(&* ' ' j <<' e
j' +,''+* +-(Z' : D 6'
' +,'1 6, ?' 6 ' ' $ 4
j' '+,'810 D& ?'P10 , & ?'10 -& ?Z' : D 6c'
' #!!+,'3 ** D 'E 0&' 'e' 4
!!!!!!+,'E , , .'PE , . Z' 6 ' '
+,'C D& .' *' 6 ' ' 9'
j ' 9 +,'C *('5+/ * ' ' '
@ @ ' +,' ' +& ' ' ' f
j ' $' +,' +6</ *, + ' 6 '
j' ' +,' (* 0
' '

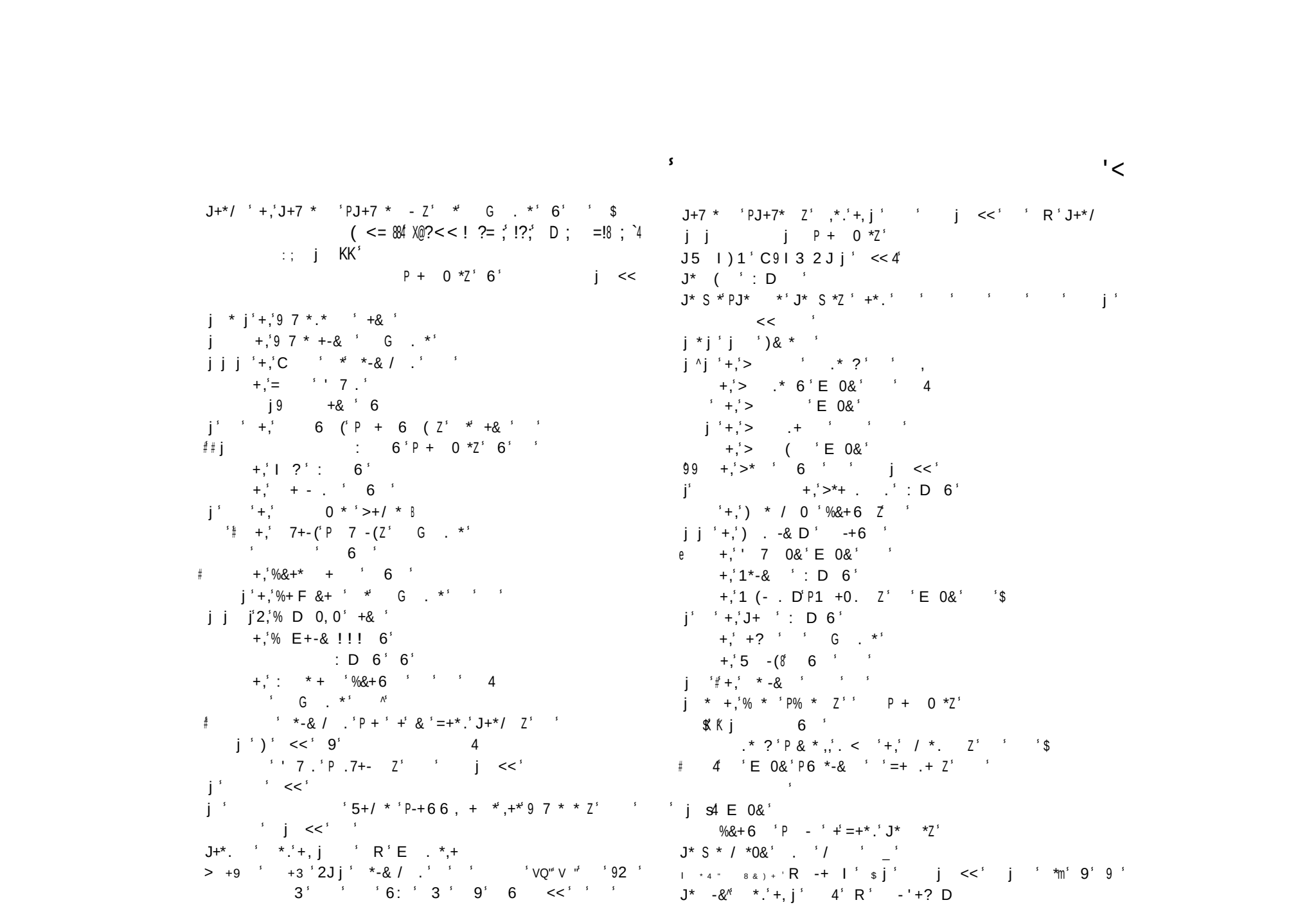


1* ('+,'> 0+ ' +& ' ' ' '
j' +,') 6/+' *' G . *' '
j'+,' ' ' 7 .'P-+66 , + *',+*'J+*, *& * Z' N' '
' ' 6
+,'C /+.+'J* - 'P + 0 *Z' ' 4
j jj '+,' 0, .' ' ' $
+& 'P0+7 6+ *'+,' * 0'- , Z'
j' - < ' +& ' <<' ' ' $
j' ' $ '-++ ' +& '
K'# . 6 ' *0 * 'P . ') , & Z' ' j <<'
' K'
' j# : 6'P + ' +' +*.') *.*+, Z' '
P-+66 , + *' ,+*') *+, Z' ' ' ' P"
TQD"' : ;T"' :CQ"' "' ;C "' C D j <<' 6'
j ' j ' j ' P6 *-& Z' << '
6 ' 3'
1 -+0. ' *.'+, j ' ' R'J* , *' 4
1? *'+,' +-(' +& ' ' '
+& 'P-+66 , + *',+*' & '/ *0&' +,'C *(- ./* 0& Z'
' ' "' TQD"' '
1? 0'+,'> * - ' '+ .'
1 + 'E * 'P- . 6 (*Z' '

J8 'PJ Z'1+/ * 'P/ '+,' *+, Z'
P-+66 , + *',+*' ' / *Z' ' ' ' j
<<'
P, - +*' +' & '1 * '+,'E . 0 + Z' <<'
j ' : 6'P *8 Z' j <<'
J / *'
J *&+ 6'+,')* 0 & D' 8' +& ' ' ' 4
J * '+,'>* , .'P> * , .Z ' '
j j'_' j # : 6'
J * '+,'% * 00 ' ' 7 .' 3
J / *' . 6' <<' ' R' ? S *+
J -+ *'+,'3 8, *F & *' *' GF<. *' '
j j'+,'C -+* &' '
'%&+6 ' j <<' ' $
j j''9j'+,'I ? + ' *' ' 7 .' <, ' ' '
!!!!!! +,' & .+' ' 6 ' j +*' +,' & ')+ .0' +,
, - ' j *' 6 ' T
*' ' 7 .'P * , . '+,' & ' , +*2'9 c
'> % "N ' 'J -+ *'+,' & .<Z'
j 9j ' : 6'P 'E 6 + Z'
' P + ' +'J -+ *'+,'I ? + Z' <<'
J ' R'J ' $
J 'PJ Z' N')& * ' _ j << 4
J * ' ' 7 .'
J * - 'P, - ',+' & ' +< ZN
J *F & *'+,'3 6 * -*+,'P3 6 -*+, Z' ' ' '
J *F & * + '+,'J 0+ ' 4' ' '
'+,'J+* * ' +& '
j +,'9* 7 * '%&+6 ' <<' ' 9
j j j j '+,' + * ')& * ' ' 36
j j s'+,' & ' 4' ' '
99999999999999 ' KK' Q' 4
j j 6 '4 <<' 9
+& ' <<' 9
j ' %&+6 . <<' 9
J * '+,' - + ' .* ?'
' ' 7 .'
'+,'% * +0 ' ' 7 .'
PJ * Z' G . *'P 0* 7 *Z'3 2 j <<'
J *0 'J* - '
J *0 + '+,'> *- -& 'P> *- -& Z' ' +& '
8'+,''+? + 'P' + 6Z' +& ' j <<' ' $
'+,'J * '%&+6 '
j +,'C +-&'PC +-&Z' ' : 6' '
+,'C (** ' G . *'

J *0 + '+,'5+-& 0* ' '
K' ' +& 'P (<< *Z'
' <<'
1+/ * P-& < ' +' &'1 * '+,' & , / * Z'
'%&+6 ' j <<' ' '
' : * '9 ' ' 4 ' $
!!!!!! ' ' # 'P '= *(Z'
$J *6' *.'+, 4'P + 0 *Z' ' R'J 6 0
'J ** *') .'
J1q'C9I 3'2J j' : j <<'
'J -&' 7 ' <<'
I 4" + 'PJ +* Z' *' QY j' ' ' ' ' '
' ' ' ' j <<' ' ' ' ' '
' $' 4
J .* , ' *.'+, j' ' ' R'= ,
J ' +& ' ' '
<<' '
J 7 ' *.'+, j'
J +-&' *.'+, j' '
J * '& * +*'+, j'
J 6 0'PJ 6 'J 6 0'J 6 0Z'+,' -& , '5+/ * _

+,'1 *+-& ' *-(' '
+,'J *6'PJ *6 Z' *-& / .'P . 0 *Z'
' ' j j# *' : 6' ' ' ' '
'+,' + , ' ' 4
J -& *'+,' / * . ; .* ?' <<' '
+,'> , +? '
'#+,' + ' .* ?' ' ' ' ' ' ' j'
<<'
' E * 'P +*'+,' / * . Z'
99' j ' 6 'P-+66 , + *',+*' ' . Z' ' "'>4"' ' ' "
V "' ' ' ' ' ' (' j <<' '
9 6' $4 !
j' <*+7+, ' <<' ' c
J+*/ ' +*. j' : 6' ' '
j j'6 , *',+, j' ' ' _ DP' % 4 4 j <<' '
' ' '
9' '9 +,' , +? ' : 6'
+ -& + >' '
j' j ' * &+ *'
9 j '+,' -&* . ' '
+,'> , 0 ' +& 'P + 0 *Z'
+,'> +0 ' 'P + 0 *Z'
9 4 9+,'> 7 ' * & *' '
'+,'> . ' : 6'
' +,'> .+. ' : 6' '
9# 9 +,'>* 6+* ' 8' 5+/ * ' ^
j #+,'> -(+ ' G . *' '
' +,'>+ . 'E * ' ' 4
j +,'>* G' * & *' ' '
9 '+,'> -& ' +& '
+,') F & ' * & * '
'j'$ j ' *-('P + 0 *Z'
j' j '+,') 6<, .' : 6'
+,') 6<& ' : D 6' '
j9 9'+,')+*, . 'P)+*, . Z 'P .*Z'
#9' * & *' ' $ K'
! +,')* 0 7 ,' *' +& 'P-+66 , + *',+*' / *. H
& * Z' ' ' ' 4' ' 4 X' ' ' '
' ' j <<' '
'j : 6'P + 0 *Z'
+,') +. 'P)+D+. Z' ' - 'P-+66 , + *',+*'9
7 * , & * Z' ' ' ' ' ' '99'9 ' '
' '3 j << '
j '+,') F & ' R'J+*/ '+,') F &
8+,'1-&'P1 -& Z 'P + 0 *Z' 6'
j 9 j %&+6 '
' '+,'J/ ' *-(' '



A'(

3* : << 9
3* +*. j << 4
+,> D0+? 06 6
j D+,> + 36
+,)* -&
e +& s <<
g 9 : 6
$ +,) & G . *
j j +,9 *-& : 6
+,C* +,= 0? D +& K
j+,(/+P /+Z 5+/ * 6 K
4> % P (<< *Z << +& 5+/ * P1 0 &6 Z
$: 6
3* +-(*. ., j 9 R & ?
je P + 0 *Z 4
3* 0: 6 P (<< *Z
3* 0+* &< -
3* 0+* +,C *. M C *.
3* *+,' 0+ *
P3* *,+ +,' ,- * &Ph (&Z ;TK
j +&
+& P J+ *6 *(.Z
3* *,+ +,> *0 %&+6 4
+,' 0+ * 6 (PK
j P3* *Z +,' (& 5+/ *
j+,=+-&F & * : 6
3*+ ? 0
3 . *.+, j R -& * + Q 20 7
3 &* +,& 9 (+&
+,) *, / (
ej +,) + +&
+,C 0 .? *. * E * !
j9$ 6 P' 0? 58< * 7 Z T j <<
+& $

9 -&,& . << M E (4$
E -(& ? *.+, j P + 0 *Z 9
E .. *.+, j R ** 4
E ..+ PE .. Z +,' * + 9 $
?E4J?B=4X =' +?CA8 `48 0
Z3 " 4&+ 84 * *' $: 4.V 4.VU4.VV4. U4. G4: KK;' 0
9 G 9 4:
+&
%&+6 j <<
E . 0+ / +& 1 * +, j
E 0: 6 P + *< / -(Z
;4 #; 4U..9
8D ;#4 J?B=4*
E . PE . E .. E .. Z +,3 0 P3 0 Z
+& P-+66, + *,+* * & & * Z c N N
%2
j 6
E 0* *.+, j R 5
E (* + +*.
E (PE -(, E -(Z4+,' ,** *)& * j
KK
*)& * P-+66, + *,+* ' 6, *6 0Z W
6 9: j <<

9 +/ P* -+,' / * & +, Z
E 5+,' .- 6/ *+& R E D+,' 0
j j+,' 0 *+& 6 9 N 69 8
#

E +,J / ** N #
j j 5+/ *
+,E 0&& .E * 9
6 P + +E +,' .- 6/ Z
*+& P-+66, + *,+* & / *0&+,1. / *0&Z
2 G66 (9 ^ ;
4 j <<
;K" 6 R E +,' 60,
j j D 6
E . +,' , . 9
+,% /+D +& 5+/ * P
E & * *.+, j R **
E + +*.
E / * + +,10 - * + 3 +*0
j+,J+. * - PJ+ & * - Z
j j j j +,9 -&- * 5+/ * P
j +,' *&+ , ? P + 0 *Z
+,' - ** ' 7 . 5+/ * P1 0 &6 Z
ej << 3 B
* -(P6 *-& Z <<
E * .&+ , +*. j <& << 5+/ * P
(< *+,& - +, j << 9e
E 6/ +,5 -&?.+. 5+/ * P
3 + 4 8/* j : 6 P *F +,) . . 1 * P
+,' ** Q = *(=+*. 7 4 + 6+ . 5+/ * P
-& , * E 8 E 0&)+ 6 , + ,Z
j * , . +,' * 6 6 9% 69 j 6
: j F VQ" 5+/ * P
: 6 j 9 5+/ * P
9 9 3 5+/ * P
j << ; 5+/ * P
j " "*m W 5+/ * P
HHHHHHHHHH 8+#)*. :UG

E 6 + +*. > S
^j 3 +*0
+&
+,' (& 6 j -+66, + *,+*
= *(& * 5+/ * P
+,' *.* 5+/ * P
K 5+/ * 4
+,> . *, + 6
. ,> 0+ * 6 6 4
+,> * - 0& P> ** - &Z +&
#j +,> * K) . P-+66, + *,+* ' 6/ * + & * Z
j << ;
#j +,> 6 + * 3 +*0 ;
+,> ** +& T
+,> *6 P> 0Z 3 +*0
+,>+ 0& . %&+6
+,) &- 5+/ * P
j +,)+ .- G . * 5+/ * P
j# +,' , *,, *-& / .
j e +,' -&6+ 6 +& 6 5+/ * P
+,' 16+-(6 5+/ * P
j Pj +,J * -(5+/ * P
+,3* 0 5+/ * P
9j +,E -* 0 +& P +*+,&)+D .0 +, , ,- Z
4 4
+& P + 0 *Z 9
j^ ! ! ! ! ! ! P + 0 *Z
$+,E & *? -(6 5+/ * P
#+,E 3 7 5+/ * P
+,E -& + PE ,-& ,+ Z 6 5+/ * P
+,C /* -&6+ PC /* (6+ Z << 5+/ * P
j 5+/ * P
g & <P + 0 *Z << 9 5+/ * P
+,C (D DPK" << 5+/ * P
e e 9 !-^275-+' '??' : : (?

E 6 + ' +,'= . .'- < ' : 6' ' ' '
j j 4 j '+,' (.' 5+/ * 4L '
j' j '+,' I ? * ' '
jNj j '+,' 2 7 , +/' %&+6 ' ' '
j 4+,' 2*/ + ' : 6' ' 4
j ' '+,' *. * ' +& '
$ j +,' *(& .g' 6 ' ' $
' j +,' * ,6 ' 5+/ * ' j +*' +,' & ')+
.0 '+,' - ' j *' 5+/ * ' ' '
j j ' ' ' #+,' * , , .' *' 6 ' <<'
B 5 &' %&+6 ' 9
' +,' 5 < +-&' 3 7 '
' : 6' 9
P + 0 *Z'
j' ' j '+,' D ., + ' +& 3
j^j 4; '+,' : / * ' '
#' ' ' 4' j' j j ' 3 /* ' 9'
j '+,' : *,<+ ' 6 ' ' ' 4 B
j j j '+,' : & ?' *' : 6' +*' +,' & ')+ .0 '+,'
4 ' , Z' ' ' j <<' D"
#' j' '+,' : & ?' : 6' ' 66 j <<' ' '
j ' Ċ 9$ G . *' P6 *' + Z' <<'
j ' G . *' P/ 8 '+,' * /*+-(' ' 4
j j j j ' .* ?'
- < 8 ' D
j j ' U' DS / &' KP . ' C 0 + Z' '
j j ' # j ' 3 7 ' P3 ? ' ' . Z'
j j j ' j '
' 3 7 ' P1 F * Z'
' D7 ' H ' 6 ' ' ' ' j <<' $
' 6 ' P + ' +' E 6 + ' +,' > 0< *Z'
$ 9 P ' C 6 * Z'
999999999 '>' T
' +& ' P ' C 6 * Z L
$ j 'P, ? *' +,' 5+.0 * + Z' !
' @@@@@@ ;>>' G'
' . ' = , ' <<' 3' '
' 5+/ * ' P/*+ & * +' E 6 + ' +,' * , + Z' 9
' %&+6 4 # P-+6 6 , + *' ,+*' & ' /?*0&' +,' = *, Z' '
'B' >B' =*' 'B(' >?B')?(: : ' '>'
' j j P 7 ' -+5+ Z' 6 ' j << 4' 9
' 4 ' ' $
*' : 5 6' P .7+- Z' ! aZ j <<' 9'
') < ' : D 6' ' ' ' ' <<'
' ' : 6' P-+6 6 , + *',/,' T , ** Z' ' ' +'
$69' 9' *' : D 6' 99:' ' 9' '
' : : ' ' ' ' o ' ' 3 j <<' '
' #4 $'
j' P .7+- Z' .' $
j' P6 , *' 'C *(? + Z' <<4' ' $
' ' ' ' ' '
' j' , ' '$ P- *(' +' & ' 1 * '+,' * Z' <<'
! ! ' P6 *-& ' '=+ .+ . ** Z'
W' ' <<' ' %
E 6 + ' / , '+, j '
E '+,' C *(. ' 6 '
E */ * 8' +& ' P6 , *Z' ' $
E */ , & *' PE */ * & * Z' *.'+, j' ' ' R' E */ &'8 0!'
E *- *' PE *- *, ' E *- , Z' +*. ' 6 8 j <<' ' A ' E+0'
E *. ' *. +, j ' <<' ' R' -+
j R . ' <<' '
E *(% +6 ' P '=+-& */ Z' 9
E *< *' +,') 6 / & ' *' +& ' ' '
+& ' P (<< *Z'
E * ' 6 ' P6 *-& Z' - P
c j ' +& ' P ' : F * *' +,' 3 ,/*.Z' '$
E * * ' *.'+, j ' 9' ' R' ' -(,+
E * ?++. ' *.'+, j '
R+ ' 9]
E *7 ' 6 ' P *7 +* ' > 6 ? .Z' <<' 3' ' #
j K' *+ ' ' ;' 4
: D 6 P ' = *(Z'
E , 0 '-++ D' j * <<' ' '
E ' +*. j ' G - *'
+,' . / &' P * / &' 6 / -&Z' G . *' ' ' ' 4"
j j '+,' ** D ' N
j '+,' & *, + ' +& '
j j '+,' > &+ +' %&+6 ' ' ' j -+6 6 , + *',+*' * '
& * ' 6 ' j <<'
j '+,' >* -&6 ' +& ' ' ' 4
j *j +,') . ' 5+/ * ' ' ' # #
! !' +,') * //-*' P) ** / *Z' 6 *' ' j <<' E '
j ')* 0 & *' c ' P + 0 *Z'
' g' .* ?' '9 < 4
+,' ' * 6 6 *' : D 6' '
j '+,' 1 6& ' : 5 6' '
+,' 1 . +< ' +& '
'+,' E + ' +& ' 6 ' '
j '+,' C *(.' * -(' '
j '+,' C +-(- . ' G . *'
+, ' ' *-(' ' ' 4
j j '' j ' P + 0 *Z'
'+,' = < 6' *' 6 ' ' ' '
j ^' s' j ' J* - 8' P + 0 *Z'
j j 3N' =+-& + ' +%6' P-+6 6 , + *',+*' * & * Z' ' ' '
' R' E '+,' *(
j '+,' * ' *' +& ' ' ' $
+,' I 0& + ' ' ' '
' 8' " ' :;<, -=6 >'
9 ' j j ' +& ' P + 0 *Z' ' ' #
9 ' j' j 9' 9j ' *' '
j '2,' *(' *')& * ' ' ' R' E '+,' =+-& +
j ' +& ' ' '
+,' 5 m '
+,' * ' P * 8 */? ' * ? Z',6 * " " ' j '
P-+6 6 , ++ *',+*' * & & Z' ' j <<' K
j '+,' : ++. -2-(. +& 4 4' $
j '+,' A *' +& ' +*. ' ' 4
j 4' G . *' P + ' +' & ' 1 E '+,' %? .. Z'
' j ' *')& * '
j ' E ' P? , ' +' I / '+,' ' * + Z'
j '; *' +& ' '
72 ' +& ' P +<' +' E '+,' I 0& + Z' <<' ' 4
9 j '= * - ' ' $
j j' ' 5 -& *. ' P- + ' * 0 *' +,' ' 3 7 7 Z' '!$
j ' : 5D6 ' P?* *' ' 1. &/ *0&Z' <<' ' ' $
P6 *-& Z' <<'
E *' : &, , .' P- S ' 4=+ .+ Z'
E *7 ' %&+6 P6 *Z'
E , ' ' G . *'
E 00 ' PE 00 ' E 00 ' E 0 ' E 0 * Z' ' G . *'
<< 4 96'
j' : 6' P-+6 6 , + *',+*' & ' / *0&' +,' $= &0+?Z
' 9' ' 69' ' 4 ' ' ' ' j '
<<' ' $
9% KK' N' ' ' ' KK' : '
E 6< .' 7 & ' 3 +*0 ' <<' 9 ' $
E . * + '+,' J+*. D '
9j j +,' E *. ' : D 6' ' ' $
6 8- 4' j <<' 9
j ' ' +& ' ' $
E * ' 42:32%7' +& ' ' **
#9 ' ' 3 +*0 4' P6 *' 4 ')+* +*<& Z' <<' '
E * + R ' 6 ' <<' ' 4 $
E </ * '+,' > *,/*.' P> *,+*.Z' 5+/ * ' 6 ' '
j j' +,' > + ' P> + 6 Z' : 2 6' j -+6 '
$ 6 , + *',+*' E . 0 + , * ' ' j <<'
j ' j' +,' > -(- , ' *' *-(' ' '

RS

9 -&. * *.+, j R +
9 0 G . * # 4$
j E .* L
+& 4P .7+- Z 0
j j %&+6
9 *0 *.+, j <<
9 *.+, j +,& 9 (j
j j j j j * 6
j ej *.+, j P + 0 *Z
+,> * + 5+/ * *
j +,)+G + *. G . * <<
j +,'* 60 (6 4
+,1. 0 &P1. 0 -&Z 4 +&
j+,C *6+ * 5+/ * *
j +,5+ (4
$ +, . . 6
+,% ,+? * P% D ,+ * Z * 4
, 0 G . * <<
j N 5+/ * P-+ 6 , + *,+* J+* *+, Z
P (<< *Z 4
%&+6 P/ +& 1 * +, 6 * Z
, 0 : 6 <<
9 &. * R 9&-&. 6
9 7 * * 8-+66 , + *,+*8 j 6 4
j 8 6 0 * +, j 4 \
9 7 * *.+, j 4 << 9 R J *F & *,+
9 7 *- **+ +*+, j
9 7 *- , *.+, j 4
9 7 * 0& *.+, j 4 R 3*
9 7 *(& 0 6 0 *
9 7 * 7 * +*+, j R) 6</ D ^
9 7 * , ^-+66 , + *,+* & / *0&+, j
9 E -+66 , + * +, << +, j
j j & * +* , ? * , * 0* . < +,& & * &* *
+, j << 4
& / +,, </ * +, j
6 0 * +, j 4
j 4 &***,,+, j
9 % &** ,,. < +, j
9* 7 * * P9 7 *+ * Z +*. j : 6
. / +, j
9 7 *? (*.+, j c
+& +& << !
+& + *.+, j T
$ 9 999 9+,)+*& . 6 P-+66 , + *,+* ' 6,* & * Z
4
j j j +,)* 0 : D 6
+,1 & E G . * j -+66 , + * ,+*
7 ' 6,* ,& * j << a 0
+,3* : 6 <<
j j j s+ 3* + : 6
j +,=+-(*/ .* ? P + 0 *Z
j 9+,I ? + .* ? #
j +,: * , + * *-& / .
j j +,: *& D P : , * ? : ** ?Z * 6
$ P-+66 , +< *,+* ' 6,* & * Z <
e +& P + 60 *Z 6
G * . * P . c + .& , + +,: *
+ Z
4 6 P * =+*. -* * Z N
. G .UV ((4 . 4 : KK V G 7
$ 4
j j 4 +& P/*+ & * + & 1 * K+, . Z <<
4
j +&
P< ** ? 06 (*Z
j j j 5+/ * P-+66 , + *,+* & / *0&+, ' 6,* Z
.U . 4 : KK5 G Ÿ 7

+& + + 6 . <<
+ 3 +*0 P6 *-& Z <<
+, +,)+D ? *. : 6
9* . 4 G . * P6 , *+,J+, +? Z 4 E
<*+
*7 P9*7 0Z+, * 6,++*.
j +,) 5+/ * *
j +,'* 6 G . * 29
j +,'* 6-+ * +&
j +, * &D PE * Z G . * 9 mK << 0 :
j +, < + << 6
j 4 G . * P6 , * !9 7, *(& 0ZN << 3
j 1.? *. P8 +*+, '* 6,* Z <<
j +& P/ +,'* 6,* Z <<
P . * 6 *-& 8 . 6+%-,F Å FZ<
* P. 0& *+,9*7 +,'* 6Z N
9*? 0 P9*7 Z -+66 , + *,+* j << 8 B
j j 6 0 * +,7 j < 4
$ K
j <*+7+, +, j 4 $ $
- : j 6 : 6 6 3
j j ^ j j *-& / . 4
M * / +, j s
88, - +A1Q *)*-& + 6c P + 0 *Z
j j 6 << 6 4
, -) *(& =+*. j
, -)+ * - *(+, j $

C 6 *.+, j R > E+6 4
C < 0+ P 17 , . Z
C *+,C 6 &E *-(!
C */ +& *.+, j
C * +,3+0 * <& 6 6 9
C * *.
C &+*. j : 6 j <<
j +, F &+* - P -&+* (Z 4 6 j & * ,,
. < +,C - *.
j +,) -&* -& $
;j j +,)* -& 3 +*0
j Lj +,J .. * 5+/ * *
* +,3 X ? +&
+, . & G . *
j +,= . & * *: 6 6
+,I +* &, . 3 +*0
+,% 0< P + 0 *Z 4 4 $
j j 6
+,K * 00 3 +*0
C / * !! *.+, j B N j << M
>+
@ * *PC Z * j <<
C / D +& 1 * +, j 4 4
C 66+-(*.+d 9 R . -3
C 6 Z *.+, j 4
-L % + % : 6
N % 3 j <<
C 6 N % > *0&+,' 6,* Z Tc
j <<
C . +*. j + +& 1 * +,) , D
#j j +, *. 6 E 0& P + 0 *Z j <<
9 9 9 +, -& , *. Z 5+/ * *
+,> < E 0&
+,) *6 -& %&+6
!-! F,) +?/ * .* ? *
!!! 9! j +,) *-& / . << j *-&/ 4
; !!! +,'* 66 P + 0 *Z
$ j 4 T P . *Z
+,3* 0 %&+6 *
+,C & 0

SU L ' $)' %*3$&3

C . ' +,'C *(6 -& ' ' 7 . ' ;VC
j ' +,'C +-(' ' 7 . ' -'
%9#' # +,' & +-&' E 0&'
' - < ' <<'
s' E<0&' P-+6 , , + *',+*' &' / * ' +,' * 0Z' '
' ' ' ' ' '$
j j P ' > * Z' <<' \
j j ' *'K + ' j4 <<'
j ' # j# j ' P6 *-& + Z' <<'
j j j %&+6 ' P-+66 , + *',+*' =+-&6 / Z' ' ` '
' ' '63 ' ' ! " "' '
C <+' /*+ & *' + & ' *. +, j' ' ' R'C\ +-&'
C <<.-&' *. +, j' j <<' ' ' R' : & & 'Q' -H
'+ .
C **'PC **Z +,', /+ , . ' ' '6 '
j' j' 9R' : 6'
j $+,') 7 * ' +& ' '
j '+,')& +'-+6 ' .*Q R'P + 0 *Z '6 '
j '+,')& ** * ' '
j '+,'J .+ , . '5+/ * '
j j '+,'J * &*, ' .+6 ' .* ' P.+6 ' . ' ./ *0 (Z'
' ' $4 #
j j' ' 9j '5+/ * '
'+,4Jc+0. '
+,'3* . ' '
j j '*, 3* & .' *' : 6'6 ' ' j <<'
j j +,'C **, . ' '
' ' ' 5+/ * 'P + 0 *Z' '
'+,'C D6+ ' ' * -(' '
j '+,'= , . ' .* ?'
+,'= . ' '
j j'+,' ' G . *' '
j j '+,' *, + ' ' '
'C < . ' *.'+, j' ' R = .
C 66 *0& 6 ' *.'+, j' 6 ' R' E+*
C / *' R'C / *' 4
C . ' *.'+, j' ' R T
' C *. 'PC *. Z '3* 0+* '+, j' ' '
C - .' R'C (.' 8 e
@ 4#B " 4 * ' *'?; : '.4' ' 4' ' ' '3 : 3
j <<' '
4C - *. '-+ - +*'+,'& ' & * '+, j <<' '
9 ' # #', - +*',+*' &' , '+, j'
' & ** ,,'. < K'+, j'
C - ' *.'+, j' ' 4
C , ' 5.'+, j' 4
C 0'+,'>+0 0* ' ,' +& '
+& '
C 0&+* '/+ 6 '+, j' '
G ' '6 0 * '+, j' 9 j <<' 2
@ 4&.+ 84*'? .# 84+' : j ' 4 j <<' '
C 0 . ' *.' _' ' R'5 , ' @$
C (.'PC - .Z'+,'& '9 (' ' '
j '+,')*+, / (' ' +& ' ' '
+& 'P .7+- Z'
C (' *.'+, j' K' ' R'E 6 +
C +-&'+,'& '9 (' *' ' 7 . ' '
'+,'3 6 * + '1* - 'P + 0 *Z'
'# +,'3+ *. ' ' j <<'
4+,' ' ' '5+/ * ' <<'
C / *PC / *Z', *.'+, j' j -+66 , + *',+*' +*, *
' , * '6 6' j <<' ' R'J * +
C *.' +*.' ' ' ' ' '
j' # j'+,') / ']) +?/ Z' G . *' Nj <<'
B')& * 'P/*+ & *' +'=+*.'C *.Z' <<'
C *+, '/ '+, j' '
#9 & * +* ', ? * 'QP +,'& ' & * '+, j' <<'
@ 4+ *'PC + *Z' *' j' +& 'S 4'VS4' U4'G 4 V4'
US4' U4S.G4'.UV4' . 4'U V4 : KK'U U 4'V 'T
C +* ' . '/ '+, j'
+ ?' +' & '1 * '+, j' <<' ,
C * '/ '+, j' '
'g j'-& 6/ * .'+, j'
7
@ / " * '? .# 84+' B' R' 7
C *(. '6 0 * '+, j j <<' '
C *(- ./* 0& '6 0 * '+, j'
<*+7+, '+, j'
C *(&+ ' *.e'+, j'
C *(6 '-& 6/ * .' +' & ' . '
C *(' *.'+, j' 9' ' R' '< 0
C *(++*. ' *.'+, j' ' R'3 ..
C *(+ ' *.'+, j' +' R'=+-(& * ') 6</ 'Q'A+ 0m'
' 6 '
C *(?++.' 6 '9 ' 4 $' 4
C +-(.+ ' *.'+, j' ' R' -) /
C +G' *.'+, j' j <<' ' R'> * 'Q' */ &*
j '9 'P* -'+,'%&+6 '> -(? Z' Nj <<' ' '
j j '%&+6 'P F<* Z'

= . (*(' +*'+, j'
= . .' *.'+, j' 'cR'E 6 + 4
= 0'+,' : *(*' 8' +& '9
= 6/' : 6'P6 *-& Z' <<'
= 6/ * / ', *.'+, j' N ' R'5 +
= , / 'P= 66 Z"6' ('"17' '??' '
' 7 .'P6 , *' ';) ** 0 + Z' <<' '9%
8= 6 *,- ' *.'+, j' 9' c
= 6 0 + ' *.'+, j'P-+66 , + *',+*' = *(& * Z' 3' 69'
' 'P " 'V " ' ' ' ' '
' ' ' j <<' '9 'TD" V: ' R'
' >

S (

- & '+,'' * < ' *-&/ . ' TPP
-T *(-+. ' > **+ ' '
-T ' ' +& :
-T & ** ' +& ' '
- *(*' '+ . ' P6' = * -&Z'
-% 7 &' ' 0 . ' P, *'+,' *. * Z' <<'
0 - ' R' -)* ' $
*' - < ' : ' <<
. ' +*. ' ' 4
j ' +,' * -& ' *')& * ' ' ' ' $ a
lf ?!' 8; A' X 8; A`4 (;' J?B=4 X ?<< ! ?= ;' !?;'
#B ' B ; ' ?!' & =DC;AB4 (= #?;' ?!'#B ' ?88 A ' ?!'
JC!# @ `4 ' 4 4 4' ' G4 G 4 ' ' '
j <<' ' 6
j # 9+,' + K' ' 7 . ' '
$; ' +,'%& * ' *' +& ' <<' ' 4
j 9 G . *' P/*+ & *' +' & ' 1 * ' +,'= . *. Z
<<'
j 94 j j ')& * ' P '0+7 6+ *'+,' & '> , Z' :' j '
<<' ' 69' 6 ' ' ' $
K ' ' 7 . ' P +6 6 , + *',+*' = . *Z' ' ' 9 '

$ j ' *' +& ' ' ' ' '
(0 ' R' +3 ' '
-+ 6 ' +,'9&7 * ' *' +& ' ' '
j 9' ' +,'=+-&+* ' ' G . *'
####$4 9 6 ' P + ' +' -+ 6 '+,'> / . Z <<' ' '
$#4 +& '
' ' ' ^ '@
0 * + ' *.'+, j'
* ' *.'+, j'
+ ' +,' >* 0 . ' G . *' P +6 6 , + *',+*') & , Z'

+ (33' P * & DZ' +3 ; 2, j '] '" ;'' 69' ' '
' ' ' ' ' ' ' j <<'
' + '
* & ' . < +' &,' 1 * +, j'
; ?; D ="' 'K!' 8D ; 4 %&+ , ' ' '
'1.? *. ' P6 *-& : Z' <<'
j # ' 6 ' P6 *-& Z' << K '
' j ' ## +& ' P6 *-& Z' <<'

' ' +, j 4)& ' PO+7 * + *'+,' & ') ' +,' *H
OZ' ' ' ' ' ' ' 6 ' ' ' '
' ' ' ' & ' ' ' ' ' ' ' ' '
43 ' 3 6 j <<' ' '69' 6 ' ' ' '
**' *.'+, j'
j / ' +' & ' 1 * ' +, j ' ' $4
* & D' - < '
j j ' 1.? *. ' P& * +*'+,' C 6 *Z'
;# = ' ?!' 0 ##8 9 ;; 4 = ; E4
j j 3 +*0 ' P + *' ' ' D Z' 9
#j ' ' K' 5+/ * ' P- *(' +' & ' , - ')+ * Z' 9 ' '
$ ' '
' * - ' +,' K' 5+/ * ' j <<' ' R' +* *H
, .'
5A' TD11 I' 2J;351 %' >59% 9 I ' Q-'
* ')& << D' -+*<+* + ' +, j ' <<'
, * ' ' ' f' ' '
_0e+ ' +,' 3* 0' . 6' <<'
j ' +,' *(6 D' P *(6 Z' ' J* - ' '
& * ' 4K +& ' P6 *' ' * Z' <<' '
.' P Z' +,' C ' B' E * ' '
' 9 lf ?!' / ;== C9 4 / #; @"47
j #j _' ' E * ' P +6 6 , + *',+*' > / -& Z' ' ' '
' j <<' ' '
. ' *.'+, j ' j <<' ' ' R') *6 -& '
G? D' +,' *(' ' ' 4
< ' E' ;' +,' > 6 - 0& ' +& ' P<*+7+,' ,' '* 6,* Z' <<'
" '

FE '' ?!' 8 ;E?? 4 (;' 2 8 ' <4 S ' V 4 .G' 0
: : : ' ?!' ?C ' 4 CAB4 U '
' ' ?!' + 8!E =#?C=4 lf CAB4 4 4' ' 0
0' ' ?!' + ;A 884 J?B=4 X>? =A ;`4 4
:lf ?!')8 =8 ; 4 < ?;' J < 4 U ' 0
j +,' ED ' 1.? *. ' ' '
j' +,' C *(-+ D' ' ' ' P5 - 7 ,' 3 * Z' 9 '
j' +,' = -(/ (' 6 ' -,V-
j' +,' + -* ,, ' ' P + 0 *Z' (P-
j' +,' + * &' *' : 6' ' ' ' '
j' +,' I & *<+ +-(' *' -. ' '
j' +,' I ? . ' : 6' P + 0 *Z'
j' +,' I ? ?' P I ? Z' 6 ' '
j' +,' I ??+*(' *' * -(' '
j ' * -(' ' '
j' +,' 2*-& * + ' P2*-& *. + Z ' <<
*' 5+/ * ' e
j' +,' +D+-(' *' +& lf P +6 6 , + *',+*' 5 ,* ? & * Z
' ' ' ' ' ' ' ' ' ' ' ' ' '
' '
j' +,' + &/ **' P . *' .' + 0 *Z' ' 4
j' +,' <* (' *' * -(' '
j' +,' : D 6 ?++. ' , ' 9 ' 4
j' G . *' P & 6 / * .' +' CD, &Z'
j' 4' 3 /* ' P6 *Z'
j' 3* , ' P* - ' +,' D ' +,') * 0 Z' <<' '$
j' *' +& lf ' R' G? D' +,' + +-(
j' +& ' P<+* + *' +,' >+ 0 + Z' ' B
j' *' * -(' :P' ,' 4
j' <*+7+, 4 9'
j' , 0 ' 5+/ * lf <<' ' g'
j' ' 6 <<'
j' -+ + D' %&+6 ' <<'
j' 7 ' : 6' <<'
: ' P6 - *Z'
' 7 ' : 6' <<'
' +,' E+* , + ' ' ' '
00 ' P 00 Z' *.' +, j ' ' j <<' ' R4 ' * 6H
6+ .
(' .* 8' P ') * ? &Z
j j ' + 6' P<+* + *' +,' ED , ?++.Z'
.* 6' *.' +, j ' ' M' D*F & *
j j ' +,')* 6 / 83 +*0 c'
j j j ' +,' 1 + ' : 6'
' ' ' 3 +*0 ' 3
0 - I 4 JK' ' ' ' j ' +& ' : :' 9 6' ' '
' ' ' ' 33 j <<' 9 ' ' 99 ' 9 '
$! j & *m
1=5+ 18 1 5= ' ' %&+6 ' <<' 9'
&*+ ' / D ' +, j '
' P 7 Z' ' ' 3 +*0 ' P9 -+ ' +,' C,*('
. ' =+*.' 5 &' + 6 ' .' > ? * ' -* '
B' *'+,' Z' :' 99 ' ' 9' ' ' 9 9
' ' =<*.' E 0&')+6 6 , + *' ' 6 9' '
j * 7 ' D' ' ' ' ' ' ' ' '
; ' ' ' ' -4-"_ . . ' 82 ' <C5' <3 ' >9
' # ' ' ' ' 2 ' ' 24' 4 ' ,2<K'
7 D' +*. ' ' ' 4 ' 39 ' >2
a' . ' ' ;QP
' 6 *'+, j '
j' ' ' ' +,') * (*.+' P) *,(*.+?') *,(*.+-&Z' +& ' '
j ' j ' 5+/ * ' P-+6 6 , + *',+*')+ < *Z' '
$ 9' ' ' ' '
j ' +,') , 0* ' 6 ' '
' +,' E & ' ' 6 ' j -+ 6 , + *',+*' J ,
& * ' ' '
j ' +,' 0 *7 ' ' 7 . '
* ' *.'+, j ' 9' ' ' #
j' / ' + j ' '
A

-

S P Z +, & 9 (*] . P-+66 , +& *
,+* * & & * Z <<
j s 5+/ * P + 0 *Z
+,> F & * +&] / 4
+,) 6/+ +&*
+,)+6* <<
j j +,) . * $;
j +,) * + P) * ? Z G . *
!! ! ! ! ! ! P + 0 *Z
j +,' F & 6 +&
j +,C 6 . P + 0 *Z
%&+6
j +, ,+. . <<
j !! 0! ! ! j 3 / * CT j <<
+, : *- -& B +&
-++ 6 #
6 8+* ' - <<
6 0 8+ <<
^j +& P .7+- & *,% . < +,= *(Z
P .7+- Z
: 6 P-+66 , / * ,+* =+-&6 / Z j F,
* <<; $
# R P6 *-& 1. / *0&Z <<
*- *+,) 7 .0 ^ P + 0 *Z *
+, 0 6 4
9 +& P %+** / * Z
* & * +*^, ? * ! Y+, & & * +, j <<
& 0 + 4 +. R ? +
& *.+, j R 6 &+, &7
. . *.B+, j 0
j j j P + 0 *Z
)& * P 7 0+7 * + *+,
&) +, * 0Z <<
+ -* ,, +,)+ , *0 & ? P + 0 *Z
+, +* < P +* < +, < +* FZ +*
< Z 39 j << 9
+, +* < 4 +&
+,5 . . P5 . Z 3 +*0 j -+ ,
+ *,+* J , & * B j <<
4
j j j - < +& P + 0 *Z
+, -&+< P -&+< Z 3 +*0 P-+6*, , + *,+*
$ $)* Z <<
j <<
+,% << *6 +-, $
j : 6 P6 , *Z <<
+ 6 (*.+, j B R J+*/
j j P + 0 *Z
+ < +, 6
+ (. *.+, j ^j << R E 6 +
! j < R
" ## $! %
+, *F P *+Z +, *. G . *
j ! # +, - 0 * 5+/ *
j j +,> *-*+, P> *-*+, Z G . * j -+66 ,H
+ *,+* *E 0 / * 4
j <<
9# K +,) >+/ *
+,) * P) * Z *3 +*0 ^
999 $ j j 3 +*0 P + 0 *Z
+,' E - +* P + 0 *Z
cj +,' * 66+ . 9 <- +*
j ej ! ,1* /+ P1 * /+DZ E 0& $
+,J+ * +& P-+66 , + *,+* 5+, & * Z
4 # j <<
5+/ * P + 0 *Z <<
+,J * PJ * , Z > (2J4
+,9 7 ** 8 P9 , ** Z +&
+,= 6 *3 +*0 P + 0 *Z -dP $
+,=+0 8 +& $ 4
9 + , I ?6/* 3 +*0 $
+,% * 7 : 6 Z
j +,% -& E 0& P + 0 *Z
#9j99j9-+66 , * j <<
' 7 . P +*+,J * , Z
*3 +*0 P-+66 , F *,+* 5+, & * Z 92
*+&
! P &Z +* j 4 s* N<<
+ &+, .- &, 6
j j j +,)& << & G . *
j 4+,5 . ,++*.
(# E ;#. < +, j
+ 0+6 * P + 0 6* Z +*.
###9 +,>+* . -+* 6
9 +,>*++6 . P . * . + 0 *Z
+,)+ , .P0+ , .Z E 0& PE ?Z 6

j 99# +,a ,, P3 ,, 3 ,, 3 ,, .Z J* - P-+6
6 , + *,+* *,& * Zg E
K
3 j <<
j j j $+,9 & , J* -
j +,= 0 & ? 7 . $
j j K8 -+/ P8 6 +* - * - , - * Z
3
9 # # ## j +, (& +* P (< 6<* Z * 6 P-+66 , + *
,+* * & * Z : 66j C a 9
j (9 9 j <<
! ! ! J* - m j <<
j E 0& P6 *-& . 3 ,0+?Z
j << 9
j %& +.+* 4 <<

)>

. U

5 .P5 .Z +,> +-&6 P> +-&6 Z +& P + 0 *Z

$ K

!!!!+,> (5+/?

+, > ** +&

j j+,' . 0: 6T;

+,E 0& + *P * -(Z

+,C .-* 0 Z

. 6 P -& Z

+&

5 .< &+,> * - 0& 6

5 ,* ?/ +, j VT

, * -+66 , + *,+* & & * +, j

5 <*+7 , << d

5 + P5 + Z +,> 6

j +,= 6 / * + +&

5 ? -(6 P<* -& *Z

5 + . P<*+7+,+,+ + *+ Z

<*+7+, <<

5 -- *+,* .0 c

5 -- * + *. +, j j <<

'* 66+ .)* 0

5 -& *. + +,6 + *< < %&+6 P *7 + *+&' (+,3+*.+ Z

5 -& +,>*

5 . . +,& 9 (*+& j -+66 , + 4,+* 5+G

/D*0& & B j e< j P + 0 Z

$+,E 0 +& $+, + P + 0 *Z

* -(

j j j I ?&+ , : *4 6 "

$j j +& P6 *-& Z << 4

3j : D 6P, ? * 5 & *0 Z

5 ..+-&+, . + 6 P/ +,) 6 + (Z

5 -(*. +, j R J@* S *

5 . *.+, j 6 $ 4

5 -& +& P. 6<(4+, * 6_ Z << 5+//' ' 7 .

5+/ * .' *.+, j

j 4 P + 0 *Z9 0

K5+/ * + +,4> . */&/ .

5+/ * + +,9 & : 6

+,C -& 0 '+ . 4

j +,5 . -PC . Z)+ ;VP

+,C *(+ +,dZ 7 . : *

j +,I ?/ 00 0 , 6

+,6 .. & 5 *-(

+,` * +-& = + *.

j j +,* ?+? 6 j << .

G . * <<

j j G . *

* / 8Z

' - j << 9

j <' - P & * ,- *(+,* 0 Z 8*<

j 3 +*0 4 4

6

999999 %B?< 4 / - &&

: *P/ +,* / *. Z

5+-& .P5+-& .Z +,9 7 * & * 6 9

4 e 6 << "6 H 1%36" . -1%!! 1" . 2, *= ')<@

* 6 P +? - *(+,1 . / *0&Z4

5+.0 *P5+.0 * Z : 6 P C ? 0Z 8

6

5/ +@ +*. j .* ?3

3 j 4' ,

+,' +?&+ ,

+,: ++., . E * PE * Z T j <<

"-& "17V/2%!!%-"6 +8 . 6+-$-F ::;

5+ . ' -*

5++(- < <<

5+ " !) j $

+&

5+, P5+, 5+, Z +*. 3

3 << j (j % j

6 + j ` (j

j +,' . : 6

j +,' -& +, J* - 5+/ * P + 0 *Z

999999?! C@D= @8? @B4 J?B=4 U

+,> 0+? ' 7 . j << 9 j & ** ,,+,' 5+,

+,) 7 G . *

j *j+,)+? -& : * 4$ $

+,1 * J , P1 , *, * 1 , *, 6 1 J * Z

G . *

: 6 j << 66

j +,3 , + 3 +*0

+, E+ 6 $$

+,9 *-& ** : 6

+,9 7 *-& ' 7 . 4

+,9 7 * & 5+/ *

j j+,C D* 7+-(E 0& j +,C . - -+ 6

<j +,C +-(0 * '+ .

+,= ** G . *

j +,' +* -& 3 +*0

j P5+, Z +,I -(+& j +,' - + Z

+,' (* P (Z' G . *

j j +,P + 0 Z

*j +,5+ &D P + 0 *Z

+& 6

j +,% 0& G . *

4)&* P* - +,J 6 +,' - + Z

' 7 . P +* +,C .) Z

<j E 0& P?* *Z <<

j < 6 P 3 *7 Z

+& P-+66 , + *,+* & / *0& P I * Z

<j P -& Z #

!! B

%&+, P6 , *Z 6

j 9: 6 P-+66 , + *,+* % Z *

3 R 5+, +,1 *J *

j j 8j j P7 *Z

5+, -+66 , *+, j ;' K

<j 4 -+66 , + *,+* & & * +, j j <<' -

j & * +* , ? * Q- +,& & * +, j << 4

5+, *.+, j R 2 <& $

j j P + 0 *Z

5+, . # - * $ $

5+ & *.+, j << R : *

5+ & , *.+, j : j << 2 96

9 TT 69 M 3+*.+

! ' : G +& P=+*. E 0&)& - +*Z

j *)+ I%1 9 j *0 * P)+ +,' E . 0 Z

5+ & / +' &)+ +, j

5+ & 6 0 * <, j 3 =

j <*+7+ +, j

5+? +,')& * 6

+,9 7 * : D 6 4 $

<j j 6 << 5+? D *.+, j 9 j -+66 + *,+* * & *

<*

$ B j << j

5+G/ *0& / + & 1 * +, j
j -& 6 / * + & 1 * +, j
j -+6 6 , + * +, << ,+ & & * +, j <<
5 -& ? *. +, j R . *,
5 3 / * +&
9 6 /+ .8 5 -& *. P1, 0 &6 Z
5 ,-+ *. +, j c j << R -3 ,,+-(
5 , 5 +, * +&
+,) -* 0 +&
#5 0 .
+, .. * 0 %&+6 ^
+, << *, .
+, : . .0 5+/ * c
: 9 8 F = ;4 8 (0
j 3 7
j + P<+* + *+,1 , .Z e
> & *,++*.7 +*. j <<
j j *. +, j B '+ B
j # j 9 j j 5+/ * +
j * j %&+6
+,J * 0 + PJ * + Z P + 60 *Z
+,C +?,+ &%&+6
+,% 7 + 7
+, : %&+6 4
$- < .* ? <<
5 &7 +*. j ' 7 . 69
$ 3 : : j
<<
+, 2 0 , * +&
- < <<

-+ +, >* . 6 . /? : 6
+,> 6& . : 6
+,) -(5+/ * +
j +,)+6 , + E *-
+& +
+,)* 0 * -(
+,1D + 5+ *,
9 j +,3 6 <<
+,3 & E 0& +
+,3 6 * - 0& P3 6 ,- 0&Z +&
P + 0 *Z +
j +,3+ . . : *
+,E *. : 6 j <<4
j << j P + 0 *Z -+6 6 , + *,+ H
(*(& * Z +
:DC j <<
j +,E . & ? 9
P + 0 *Z
+,E & *? -(' 7 . # B 4 $
+,E -& *3 . + P + +& 1 * +,% ** Z
3 j << 9
+,E+*, &, 5+/ * +
+, +& + 6 +
j +,1 &+ 6 P= &+6 Z : *
+,=+0 6 j -+6 6 , + *,+ J+*, * & * 4
+, P Z +& _
j +,5 . / * P5 / * Z +& +
+,5 / * : 6 +
j +, -& ?++.m 6 +
+, -+ */ ' 7 . +
j + +, + +& +
+, < *, . 9
j K 5+/ * +
+,9B& * * J* &- P-2%+6 , + *,+ (*(,& * Z
6 3 4
j : 6
$ +,%+. * 0 %&+6 +
: *
+,% & ? : *
+,D * . 3 . + 6 $
+,: D P : Z +& j -+6 6 , + *,+ & ,& * +,5+G/ *0&
6 3 6 3 j << 4 4
+,: 6 +& 3
j +,: & , .
j %&+6
.* ? P + 0 * 6 *-& Z

E B P <+ + 1 . 6+ , + +, ' * &Z
* J* - j << 3
J* - 4
6 P & ** ,J - *(+, 1 . / *0&Z <<
+& P 6 P,+6 6 , +& *,+ 5 & *0 Z 28 @
3 *,
* -(+
5+/ * P < & 7+-(Z
* : 6 9 j << B
s P + 0 *Z
j j : 6 P- / 6 (*Z j << 6
-+ 0 D 6 P +* +, : & (*(Z
j P-+6 6 , + *,+ C +* Z
<<

j 6 j -+6 6 , + *,+ 1 . / *0&
-* 60 * 8M -* 6S + *Z +, C *(6+* * ' 7 .
j j +, C *(+
G @ C 2 . -, V . %7%63-+ 8++%-F ::&

* +&,' $ /& ((

)(

&5%8' $)'

8311-+!275 ' . 2$"'+#-7-+2!!' : : ' +' ' ; G
j ' ## # E 0&' <<' '
9' , 0 ' 5+/ * ' <<'
H%!!%2 . ' : : ' ' ' ;
'+,'> 0+? ' *' 3 +*0 ' 'P '" T ; V
* + 'P + Z'+,' & '9 (' '(P ;"' j <<' '
9 ' j '+& ' ' ' ' ' j -+6 6 ,
+ *',+*' > *? -(& * ' ' ' ' ' '
j *' +& ' j << '
j j j '+,' *, 0 + ' ' G . *"P +*'+,' & ')+D .0 '
;' +,' , - Z' ' j *' G . *' 6
j ' ' 3(* 'P + 0 *Z j <<'
' '+,'- & *& ' G . *' ' c
j j ' G . *' P +6 6 , + *' Q*' ' &*,- ' ' j '
: : '
j '- < ')& * ' <<' '
? S *+' . 6'J / * ' <<'
?+*.' K . * ?'
. *,'+,' & '9 (' '$$ '
' j '+,'5+ -& ?' 6 Z'P + 0 *Z'

> -(' * & *' P 'E 6 + Z'
% , *' * -('
% + *'P% +*Z'+,'> **+?, .'5+/ * '
e ' +& 'P6 , *' ' '*+ Z4' <<'
cj j' ".6'P6 *-& '+,'=+ .+ Z'
' ## j 'P . *' 'E+ &+ , Z'
5+/ * '
% ' . '/ '+, j'
6 0 * '+, j'
% ' G . *' P (<< *' '= &Z' <<'
1 - 'P% */ Z' * # ' j '3 +*0 ' ' ' ' '69' N
6 ' ' ' " Z N '92 ' ' '
3 "_ ' (R'6 'T : j '
' 3 ' ' ' ' 'CQD" C"VT" j '
<<' ' ' ' 9' ' ' 9' ' '
" - ' ' ' '69' ' ' ' 4'
'6 '3 j <<' '
j ; : *' ' ' g
: 5 : Z : ' ?C %& '. j 'E ' 4
% 'P% .Z" - <
6 + '
%& * *' ' +*.' <<'
&'. < '+*.' ' ' ' j <<'
%&+ *'P%&+* Z'+, * (' ''
j 9 : 6'P + 0 *Z' '
' j ' *' ' 7 .'P .7+- Z* ' ' ' j <<' '
%&+6 + '+,' *. & ' 6 ' ' 4
j j j ' ' G . *' P6 , *' 'J * Z' ' j <<4
9 ' :' $
9 G . *'P-+6 6 , + *',+*' & '/ *0& +,'1 . / *0&Z'
j <<'
j .* ?' ' $
)+D ' %'
j '3 /* '
_' a, 6'
*0 * '
9 *' : 6'
' : 6' '
%&* - .' 7 '9 -' <<'
%&* < .'+,' & 0 (' *' * -(' ' ' $
%& * +' / '+, ' '
% /+. ' *.'+, j' ' ' R' / *-*+6 /
%D -+ * ' *.'+, j' ' ' ' j <<' ' N '
$ R' I -+ ,+
% 6< . ' *.'+, j' '
' %+.' *8 ' <<' ' $ '
%+, ' *.'+, j 6 '$ 7^' > D&

%+*<& -& ' +*.' ' ' 69' ' ' ' ' ' o ' 9g'
' ' << '
%+** - ' *.'+, j' ' ' R' ? *
%- ,+ - ' *.'+, j' 6 '
%+*?++. ' *.'+, j 'P-+6 6 , + *',+*' (*(& * Z' 4'
' j <<' ' R' * 0
%+ -&" *.'+, j' 6 '
%+?-+*, 'P%+ -+*, Z' *.'+, j ' R')+*/
%* D' 3 +*0 ' P-+6 6 , + *',+*' C *(? Z' ' ' ' 4'
" j <<' '
%* '< *+-& *' +, j'
) + +' +3 ' 9 <' '
%* '1 S / &'
%*+-&* 0' *.'+, j' Z 2' R' >+ .'
%*+ *', C & ' 'P + 0 *Z' 6
' j' j G . *' '
$ j' +,' +* + & D' +& ' ' ' j <<' 9
'+,' : .+< ' G . *'
j j ' G . *'P/*+ &6K' +' & ' *.'+,' +* + & DZ' <<' '
j j ^j' +& '
%*+ <' *.'+, j*' ' R' 3 *.
% D . ,J' ' : 6'
% D+-/'PB, +-&Z'+,'% -& ' G . *' <<' '
9 %&+6 ' B
j j' je ^P + 0 *Z' <<' '
' %&+6 'P-+6 6 , + *',+*' & '/ *0&' ,'J+** Z' '
: 8' : ;8' : 8 = 0996'
% +' +& 'P (*Z'K ^ <' '
% * / '+,'> B? ' : *'
j j '+,'= 0* ?' : 6' ;' 4
j +,' 6 . . & D' '
j'+,' & 'P .& DZ' '
_T %&+6 '
j'+,' * -(&*+?' ' '
'P + 0 *Z'
G . *'P<*+7+,'+,' + *+, Z'
j ' $ 3 +*0 'P6 , *Z' <<'
% * *' 6 'P- / '6 (*Z'
1 2 ' ' j ' +& ' P1 *' +,' 3 ,,+*.' R -+ ' +,'
: . '=+*.'E '+,'A *Z' ' j '2 F' '
69' ' B ' ' ' ' 9' ' ' j'
=+*.'E 0&') & - +*' ' ' ' ' '
& ' %' =+*.' E 0&')+6 6 , + *'
' 3 ' ' e ' ' j <<' j 2 : '
' j ' F' '
%? . . '/ D ' +' & '1 * ' +, j
%? . 'E * 'P. -+ '+,' & '- . 6 (* Z'
%? . ' 6 'P6 *-& '+,'=+ .+ Z'
% * -+ '6 ' +*.'

D. ' *.';+, j' +,' & '9 (' G . *' ' ' '
+& 'P + 0 *Z 4L'
'+,' - * '5+/ * 4' '
+,')+ *- ' +& ' ' ' 4
$+,' I ? D' +& '
' * & *'P(< *' +,' & ' + /++ &' +,'1 . / *0&Z'
D< + ' * *'
D* '+,' & *0 * + ' 6 4' '
j !' '9 ' - < '
D*F & *'+,'>* 0? ' : D 6 '
+,'> **, *.'P> 8 *.0 Z' '%&+6 ' '
j +,')* 0&+ , ' +& 'P-+6 6 , + *',+*')*+6 * Z
j <<'
9 '9j'+,' .* 6' . '
9 j '+,' I ?& ' G . 4' '
!' j ^ ' +& 'P> *Z' '
9-& 6 / * .'+, j'
D** ', R' D*

US

> , ' & '- , '+,' & j ' ' ' j <<' '
> &0 ' & ** ,, .+6 '+, j ' 8j <<'
> 7 * 'P '9 0 .Z' 4
> 0' . '+, j' ' ` '
> , + ' 6++*' :-
> * 'P '9* .Z' <<' g='
> , ' +? '+, j ,_ '
> , 8 ' . '+, j'
> *7 ' ? *' +, j 4 j 888<'
> *? -(' / *0&' +, j ' +? '+, j ' <<' ' ' ' ' '
: : : & * ,, .+6 '+, :' ' : ' 1' ' : ' ' '
' 4 ' ' ^ '
' ,' 7 ' 92 a . . 'P*' ' 8' ' ' ' ' '
L < R" *# %' '0 %' R ' I +* &8 > *? -(
> 6 (+? ' . '+, j' ^
> *, ', E* '+, j' ' 4
j' < - '+, j' <<' ' '
> -(0* ' . '+, j' ' 4
' 6 +*' < - '+, j'
> -(, '- , '+, j' j <<' %
> . : ++. ' . '+, j' ' $
> *' ' &+ '- , '+, j' <<' j ' F'
j %(*(' +, j' <<' KP
> * +0 ' . '+, j'
>+. . + '9? . '+, j' 4' K
>+ 0 ,' 3 -&' & ' <<' - '
>+ - ' . '+, j' <<'
>+ 0 + ' / ^& 0', . '
>+ + & . ' <<'
>+**<?, + ' <<'
>+ >?8 '<*+7 , * '+, j' ' ' '
>+ &? /*X 8' ' ' ' ' ' j <<' ' '
>+?&+ ' . '+, j'
>+ '* 7 *' +, j 'P '9* .Z' 9'
>* '+,' ' & '" $ / / 'KV
>* .& 0&' . '+, j'
>* G&+ 6 ',+* - '+, j'
' . ' .' / **+ 8 '+," j'
>* -& 'P>* -& Z' / *0&' +, j +? '+, j' ' ' '
' ' '
9j' '+, j' 3
>* -& + ' . '+, j'
>*+-(/* ' ' $'
>*++6& ' . '+, j # j '
>*+ , *. . ' .' +, j'
>* -& '- , '+, j' <<'
, ** '+, j' <<'
>* 0& + ' / **+ '+, j'
>* . ' / *0&' +, j' ' - " 9' ' ' ' ' ' ' '
j <<' '
>* ,, . ' . ' .' 6 +*' < - '+, j '
>* - '- +, 'P 1. / *0&Z'
> -- 0&' * .+6' .' +*. & < +, j' 4 '
> - 7 ' 9
> .L' 6 'P '1. / *0&Z' '
>+*. G' +? ' j #
>60&' . '+, j' ' 4
> 66+ &' . '+, j' j '
> 6? . ' <<'
> ' & * ,, .+6' +, j' ' '6 ' ' ' ' ' 9 ' ' '
c' ' ' ' ' ' ' '
> & D' . ' +*. & <' .' / **+ '+, j' "
> & ' (*(' +, j
) < &+<' P)& <&+< Z' . '+, j'
j ' +? '+, j' N&F & '5 & *,++*.Z'
) &6 / 0 '&+ ,'+, j' <<' ' R ') 6 / 0
3 & 'P) & Z' & * ,, +6' +, j ' ' ' ' 9 ' '
4 ' ' ' ' ' ' ' ' j KK'
' ' ' $
) . *' / + '+,' ? j' e
) . *- *' . ' / **+ ' .' -& *-&' +, j ' !
) . . ' . '+,'+ .' .' ?' +? '+, j c'
) ., * 6' / **+ '+, j' <<' '
) 6 -('P ' + & '
) '<+*' +, j' <<' ,
) . *' < *+-& '+, j' ' 8 $
) 6 / & 6' +7 * + '+, j'
) 6<& *' <+*' +, j
) 6< '- -& '+, j'
j j '< * +-&' +, j' ' $' $
) + 0 ' / *0&' +,' & j' '92 ' ' ' ' ' s'
' ?' -& *-&' +, j' 9
'< * &' -& *-&' +, j' '
+ /++ &' +, j' << '
) *.+ ' . ' .' / **+ '+, j' '
) *.*+, '&+ '+, j'
j' . '+, j'
) *0 '(&('+, j'
) * 7 *+-(' . '+, j'
' . ' .' / **+ '+, j' ^
) * 0<++ ' . '+, j'
) * ?<*(' < - '+, j'
) * + ('< * &' +, j'
) *6 +-(' / **+ '+, j' '
, & *' (*' +, j'
. '+, j'
' 6 '+, j'
' 6 * '+, j'
j' ' & * + '+, j'
+7 * + '+, j'
) * , * '&+ '+, j' <<'
) * /+*0' '+, j' <<'
) * / 0' / **+ '+, j' ' R ') * / 0
) * +-('/ **+ '+, j' ' '
. '+, j ' N'
j ' + '+, j' 2'
) * . 86' . '+, j' '
) * ? &' +? '+, j'
3 ** -(' / * '+, j' ' ' ' ' ' ' ' j <<' '
' '
' -+ ,'+, j' j <<' '
' 8 * . - + '+, j' <<'
) ** 0 + '(*(' +, j' <<' ' '
') * *& 0&_' . '+, j'
) * *6 -&' . '+, j
), + N <<' '6 ' R ') , 6 (
^ *j (*('8 .' -& < .* '+, j'
) 6 (' / **+ '+, j'
j - + '+, j' ' $
6 +*' < - '+, j' '
' (& %&' $) '
$) -&6 *& 'N&F & ' I ? *(Z' . '+, j' %
') & * '(*(' +, j' '
) -('96 . '+, j 4
) .,- -&' . '+, j'
)& <&+< ' R ') < &+<
)& 6 / * . ? + ' . ' .' / **+ '+, j'
)& << '-*+, '
)& +' . '+,' & * j' '
)& * . '-+6 6+ '6 * '- .'
) -(6 ' & * ,, .+6' +, j $ ' ' ' ' ' ' ' '2-- '
' ' ' ' ' ' ' j
<<' ' ' '69'
) +-& ? ' & '
) <-(+ 'P ') 6 +-(Z' ' '

UX

P

' E0 , 6 +, j
8j +? . 6 +, j 4 $
' (. +? +, * << 9T j
' (*(<<
' -& + , / *0& +, / **< +, j
j &+ . . +, j
' 0 . . / **+ +, j
' + * - , +, j P KD" j <<
(*(+, j
' *+. (*(+, j *
c j * . . / **+ +, j B
j 6 +, j
' * ,& +, j
' & 8 (*(+, j P ** & * Z <<
j < *+ & +, !
' , * / *0& +, j +? +, j
j <<
j 9?&+ * . + /++ &+, j

1 *,, **
1-- 0* 0 N&F& * Z (*(+, j ^
j j < *+ & +, j
$# 1.. *, + . +, j
1. / *0& / , +<* -(+, j
j / -(,* * ? .
j / *0& +, j +? +, j 4 j m :
: 9
j <<
$$
- + 0 +, j j << R) + 0
*j &6% _ P TP (; TQ" ; PP < j
<< 6 6
9 -+ L &+ +, j é
j j j -+?0 +, j
j # J+** , * ? -/ ;
Ŕ 0* , 6 *(+, j
9 j 0* ,* * (*(+, j $
j j j & 0& * +, j
0& -+ - &+ +, j <<
j j I . . * ? .
4 <+ ** ?+, j
< * / * +, j #
j #j & * ,,.+6 +, j j F j F CD
9
g
j <<
j j / */ +, j 6 j <<
j j j j + /++ &+, = j F PK j <<

1. 0 , &+ +, j << 4
1 . 0 &+< . +, j 4
1 0 / 6 0& +, j +? +, j : " TQD" "T ; P
. " j << 6
& * ,,.+6 +, j
j <<
1
1D , (* &+ , +, j 9
1 + P1 Z . +, j
6 . +, j
+? +, j
$117 . +, j
$ 1 7 0, + . +, j c

1 0 . ; P
e +* +, j ; V
1 , * & * R , * & *
1 (? * +, j 9
1 (. 0* ,+** , * +, j
< * , +, j
I * 0 +, j
1 * -(,+** , +*. , < +, j
1? +7 * < *+-& +, j
1? . . . +*. & < +, j
J * . +, 1 , * j
J * & * ** . j
J (*(+? +, j <<
J (. < - +, j
J , . . +, j
J - , . +? . 6 +, j
j j 6 +, j
J & 0& . +, j $
J . . / **+ +, j
J . . * +? +, j
J * &+< . +, j
J ** +, . +, j j << 66
J * , + (*(+, j
J , R J ,
J * PJ * Z ? * . +, j
J * -& *- 8 +, j B
J . * << 6
J & * (* &
J+*. / **+ +, j
J+*, * / *0& +, j +? +, j
6 6 3 j << 6
& * ,,.+6 +, j a
$ 3 9 j << 6
J+** / *0& +, j +? +, j 4
3 j << 6
J+** * P) +-(/ 6 < &Z . +, j
J+* *+, PJ+* *+, Z / *0& +, j +? +, j
4 3 j << : 9
-& *-& +, j <<
J+* & * 7 * +, j 8 j << E
J+* R 6 j << 92
$ J+* * (*(+, j
J* - j <<
J* * PJ* , *Z / **+ +, j j <<
- , 3 j <<
J* .P * * & & * Z << T
J* * *.
J , , -+ , +, j <<
& * ,,.+6 +, j
9
6 9^ j << 6 3
? * * . +*. & < +, j

3 * + &+ +, j 4
3 & +? +, j <<
3 +? / *0& +, I ? j
^ -+ , +, j <<
5 . +, j
& * +, j
3 +?& D . +, j
3 *6 + . . / **+ +, j
3 ((*(+, j
3 -& >+ 0 +, j <<
3 . +, , * . ? , * j 9 9 j F
3 *6
3 . ,- 0& . +, j

3 -&* ('PC - * ('C +-&* (Z' j <<' '
3 . ' . ' '
3 02 7' *-&/ &+<* -(' + , s' ^
j' j' / *0&' +, j ' +? ' +, j ' ' ' ' j ' ' ' '
' ' ' ' ' ' ' ' T ' ' ' '
' ' ' ' ' ' ' ' j
' <<' ' ' ' '6 ' ' ' ' '
' B
j '& ' (*(' .' *+ ' (*(' + , j ' <<'
_'_ ' &+ < ' +, j ' ' ' j <<' '
j '6 *-& <'&+ < ' +, j ' <<'
j ' ?'<+*' +, j ' <<' ' R' I ?<+*
j '< *(' + , j ' <<'
j '* 0 ' +, j ' '
j '* 0 ' .' / **+ ' +, j ' <<' '
$ + /++ &' + , j ' <<'
3 * ' . ' +, j ' <<'
' j ' < *+-& ' +, j ' <<' i
3 ' .' +, j '
3 *6 ' <<'
3 - * ' (*(' + , j '
3 -+ ' '
3 , '
3 0 ** /* ' +, '
3 - ' * 0 ' +, j '
+? ' +, j ' ' 022
3 6 -(' (*(' + , j '
3 *+ 'P ' =+-& / *Z' 9 9
3 + ' . ' +,^ j'
3 < 'P ' =+-& / *Z' '
3 ' <<'
2++. * ' . ' <, j ' ' j <<' < ' R' 3 * '
3+*0 ' 6 . . ' & ' +, j '
' 3+ B <-('P3 +-(Z' / **+ ' 2, j '
/ *0&' +,' / **+ ' +, j X'
j j ' ' j' . +, +7 *' .' & * j' '
' 3* ' (*(' + , j ' <<'
' . ' +, j 4 <<'
3* 0 ' . ' +, j '
3* , ' *(' R' 1 . / *0&
3* - , ' <<'
3* .'
3* +-(' <<' 9 ' '
3* ?' . ' j '
3* ?++. ' . ' +, j '
3* ?' . ' .' / **+ ' 2, j ' ' $
3 * 'P3 & * ' 3++. * Z' . ' +, j ' <<' ' p*' 3++.N
*

'E . . 0 + ' / *0 ' +* j ' !' ! ! ! ! !
' B' ' j <<' ' ' ' $
j j j j -+ , / * ' +, j ' ' '
j '<* / * ' +, j ' j <<'
j ^ & * ,, .+6' + , j ' ' ' j ' ' ' '
' # $' ' ' ' ' ' ' ' '
' B ' ' ' ' $ << ' - 2"'T ; Q
E / 6 ' . ' +, j ' ' ' 4
E &+* ' . ' +, j ' ' '
E &+* , -(' . ' +, j c'
E *. ' . ' +, j ' ' B'
. ' .' / **+ ' +, j ' 9
E *++. &+ , ' ' '
/ / ' +, j '
j' C 0 ' *(' + , j ' <<'
j < - ' +, j ' ' '
E 6 + ' . *, ' +, j ' ' $4
' 4 +*. & <' + , j '
' ' <*+7 * ' +, j ' j <<' 6' 4

E 6 + ' +? ' +, j ' j <<' 3
E 6< + ')+ * ' ' ' 96'
E 0 , ?' . ' +, j '
E *?++. ' . ' +, j '
E , . ' + *' .' ,+* - ' +, j '
E ? -(' / *0&' +,' / **+ ' +, j '
(*(' + , j ' ' #
. ' .' / **+ ' +, j '
E * + &+,< 'P ' 1 . / *0&Z' j <<' ' '
E *6 + ' . ' +, j '
E *6 0 ' - , ' +, j '
E , '8 = ' +, j ' SS
E 0& . ' & ' T : '" CPT
E & .' . ' +, j ' 9 j <<'
E ' . ' +, jL' 9
E+ .' ' ' ' ' ' ' j <<'
E+6 ' - +, 'P ' 1 . / *0&Z'
E+<* 0' . ' .' / **+ ' +, j '
E+ 6 ' / **+ ' . ' (*(' + , j '
E+? . + ' . ' +, j '
E+? ') +. ' .' - .'
E 6, * 'P ' J* - Z' <<'
E & 'N & ' -* , / *0&Z' . ' .' / **+ ' +, j ' '
E 6 ' . ' +, j ' '
E ' * ? ' +, j '

. / *0&' / *0&' + , j ' +? ' +, j ' ' ' ' ' " ' '
' ' ' j <<' ' VV'
*7 ?++. ' . ' .' / **+ ' +, j '
9 . ' & ' '
9 0 . ' . ' +, j ' '
9 0 (%+ ? '9 . ' +, j '
9 7 * D ' < *+-& ' +, j '
9 * * * 'P9 7 * * Z' / *0&' + , j ' + 7 ' +, j ' ' ' ' ' ' 4
' ' 3 ' j <<' 6' B'
9 7 */ *7 ' / *0&' + , j ' ' ' ' ' ' ' '
9 7 * +-&' +? ' +, j '
9 7 *(& 0' / *0&' + , j ' +? ' +, j ' ' ' ' ' 'T ; P"
; ' ' ' j <<'
< *+-&' / , j ' <<' 9
9 7 *(< ' <<' 9' 4
9 7 * +-& ' ' ' ' j <<' KD"PT
9 7 6 , ' / *0&' + , j ' +? ' +, j ' ' 6' ' ' 6' 9: ' 2 - -'"
(-P" TD " ' ' j <<' 9 ' ' 9
j =+ ' . 7 + ' +, j ' ' ' 6
j j ' < *+-& ' +, j '
$j c ċ # ,+* & ' . 7 , + ' +, j ' ' 6
j , ' & * ,, .+6' + , j ' ' ' ' ' ' ' ' 9 9
' ' ' ' ' `_Z: ' ' ' j '
9 7 * * 'P9 7 *+ % Z' ' *0 ' + j
6 9' 6 6' 3 ' * <<' ' ' $ m
9* .' -+ , ' +, j ' 2
j j (0 .+6' + , j ' ' ' ' 8 ' ' ' ' 9'
$ ' 9' j < ' 66' ' ' 9
9*7 'P9*? 0Z' / *0&' + , j ' + : <, [j' ' ' 3 ' ' '
' ' ' ' ' ' ' ' ' ' ' ' j
<<' ' ' ' ' ' ' 3' " '
9 ' & ' +* & ' .' ? * '
' / &+<* -(' + ,' & j ' j <<'
' +.' +,' & j ' ' '
* ' ' +, j '

C / * ' +? ' +, j '
$C 'PC & Z' . ,' +, j ' 8 ' '
j ' < *+-& ' +, j ' <<' ' 4
C +-&' . ' / , j ' ' $

?(

* 0 - , + , : j %
6 j << , 6: $
j *< *(+, j j << $
_ _+ & * ,, .+6+, j 9
6; 3 j << AK* !J@BJB!
* 0 & * /* +, j 6
+/& &+ <, j $ <<
+/ -+ . <, j
+ (*(<<
+ * * +? +, j
* /+0 +? +, j << 9
* (7(+ +, j
* 0 +? +, j
* * ? * / *0& +, j +? +, j
* & 7 ? * * +, j 9
* & * . 9
* & 7 * &
* & < . j <<
* & * 0 +, j << 4
*+? <<
. . * 0 . 4+,* $
& * . & * ,, .+6+, j 3
4 6 j <<
? & * R I ? / / 4
? + +? +, j <<
+ . .+8 4+, j

% 6 + D< - +, j << 9
% */ d % Z ; << 9
j j / **+ +, j s s
. . / **+ +, j 9
j < *+-& < +, j << 66
j & * +, j
+ ? +, j
% ** . . / **+ +,4 j
% ? *+, j << "
% P% Z / *0& +, j
% 7 + . j <<
%& * . +, j $
%&+* + . . / **+ +, j
.+, j
%&* < .& . +, j 4
%+** / 0 . +, j
%+ * . +, j
%* -& *-& 275 < *+-& +, j
%* ? . * . 6 +* < - +, j

%* 6 * P+, >* -& Z 3
% 6 * & . +, - * j 9 9 j %
% * . . +, j

D* (*(+, j
D*F & * &+ +
. . / **+ +, j 4
j,cj 4 . <
< *+-& +, j 0
j 4 < - +, j

R , . +, j 4ZZ<
R *, < 9Z L

: *. 0 &+< . +, j
: *. ? < *+-& +, j K
: -&+< (*(+, j
: -& + . . / **+ +, j
: (/ *0& +, j +? +, j
: 6 , * . ? , R j 9
: -+ * 0 . +, j
: & /* . +, j $
: & &+* / *0& +, j + ? +, j GV4 9 \ \
#
: & & $
: & &+< . +, j $ "
: 0 < / *0& +, j +? +, j o 699
-+ +, j 3
1 ,, .+6 <, j
9 9 Q
4 4
. ? . +, j
$: . : . +, j
: + + / **+ +, j
4 j j j (*(+, j 36 $
j j . +, j f
j j < *+-& +, j

A * ? *. +, j P 1 * -(,+** , Z
A +, j

q .4 ^ j <<
j j j . +, j j << :
(*(.

□□

Digitized with financial assistance from the

Government of Maharashtra

on 18 July, 2018